



Ahsay Cloud Backup Suite v7

Administrator's Guide

Ahsay Systems Corporation Limited

31 October 2017

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Revision History

Date	Descriptions	Type of modification
28 April 2017	- Re-worked the entire Replication section	Modification
11 July 2017	- Ch.3, Ch. 4, Ch. 6.1, Ch. 6.2, Ch. 6.4; Ch. 7.4, Ch. 7.6, Ch. 9.7, Appendix A,J;	Modification
11 August 2017	- Update all the pictures for Administrative Access in Ch5.1, Ch10; Update information for Quota, Modified Required Settings for Recovering Encryption Key via AhsayCBS Web Console, Update picture for Statistics, Add description for Rebuild Storage Statistics in Ch6.2; Modified Predefined Destination vs Standard Destination in Ch.6.4; Add language of Portuguese (Brazil), Slovenian, Polish, Finnish and Czech in Ch5.1	Modification
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Table of Contents

1	Overview	1
	What is this software?	1
	System Architecture	1
	AhsayCBS System Components.....	2
	Client Components	2
	Server Components.....	6
	Agentless Backup / Restore	7
	Why should I use AhsayCBS to manage my backup users and system?	8
2	About this Document.....	11
	What is the purpose of this document?	11
	What should I expect from this document?	11
	Who should read this document?	11
3	Log in to AhsayCBS Server	12
	Log in to AhsayCBS Web Management Console	12
	Download Client Backup Agents	14
	Change the Language.....	17
	Invoke Online Help.....	18
4	Managing License.....	19
	Verify License Connectivity	19
	Manage License Key.....	22
	License Summary and Requirements.....	24
	Automatic License Renewal	26
	License Evaluation Expiry	26
	Offline License Activation	26
	License Management Portal.....	27
	Active Pool Key	28
5	System Settings.....	29
	Basic Backup Server Configuration.....	29
	General	29
	Host.....	30
	System Home	30
	Listening to non-standard TCP/IP Port.....	30
	Listening to a single IP address	31
	Restricting access to system page by IP address	31
	Installation a trusted SSL certificate.....	32
	Renew a trusted SSL certificate.....	35
	Wild card SSL certificate with redirector setup	36

Email	40
Predefined Destinations Tab	42
Set up predefined destination on cloud storage	42
Administrative Access Tab	46
Add a new system user	46
Sending a broadcast message	48
Managing System User	49
Export/Import System Users	55
Languages.....	56
Advanced Backup Server Configuration.....	57
Auto Save.....	57
Proxy	59
Logging	60
File Explorer	62
Runtime Options Tab.....	63
6 Managing Backup/Restore.....	64
Backup / Restore Basic Configuration.....	64
User Home	65
Free Trial Options.....	66
Backup Data Migration	67
Suggestion and Requirement	68
How to Perform the Data Migration.....	69
To add the exclusion of a v6 backup set from the data migration:.....	70
To delete an existing exclusion of a v6 backup set:	70
Run Direct	71
Manage Backup Users.....	72
Backup User Tab.....	72
Create a New Backup User	73
Managing Backup Users.....	80
User Profile.....	81
Backup Set.....	88
Recovering Encryption Key via AhsayCBS Web Console	89
Settings	95
Windows event log.....	95
Report	96
Statistics.....	97
Effective Policy	100
Delete Backup User.....	103
Auto Update	104
Broadcast	104
Backup User.....	105

Export Users' Usage Statistics to CSV File.....	105
Export Users.....	107
Rebuild Storage Statistics.....	111
Manage User Groups.....	112
The default user group.....	112
To add backup user to a user group	113
To add a new policy group to a user group	113
Manage Policy Groups.....	114
To create a new policy group.....	115
To modify a policy group.....	116
To delete a policy group	116
To duplicate a policy group	117
To configure a policy group	118
General	118
To add backup user to a policy group	118
User Settings.....	119
Quota.....	119
Invalid Login Attempt Limit.....	121
Password.....	122
Email Reports	123
Bcc reports to email	138
Encryption Key	139
Client Host Limit	139
Run Direct VM Limit.....	140
Advertisement.....	140
Backup Set Settings	142
Exclude Backup File	142
Destinations Visible to Users	142
Backup Set Types Visible to Users	145
Cloud File Backup Source Visible to Users.....	145
GUI Settings.....	147
New Backup Set Wizard	148
Help Page.....	149
Add Contact.....	149
Remove Contact.....	149
Add Backup Set.....	149
Remove Backup Set.....	150
Default Values	150
General.....	150
Source	153
Backup Schedule.....	157
Continuous Backup.....	158

Destination	160
In-File Delta	161
Retention Policy.....	163
Command Line Tool	165
Reminder	166
Bandwidth Control	166
IP Allowed for Restore	167
Others.....	168
Preempted Values	173
Source	174
Backup Schedule.....	177
Continuous Backup.....	178
Destination	181
In-File Delta	181
Retention Policy.....	183
Command Line Tool	186
Reminder	187
Bandwidth Control	187
IP Allowed for Restore	188
Others.....	190
Preempted Backup Sets.....	192
Create a preempted backup set.....	192
Mobile Settings.....	198
Destinations Visible to Users	198
Encryption Key	200
Default Values	201
Manage Windows Active Directory Integration	202
To enable and configure the Manage Windows Active Directory Integration feature.....	202
7 Replication	203
Overview.....	203
Differences between v6 and v7 on Replication	204
How does Replication Work.....	205
Replication Scope.....	206
Coexistence of v6 and v7 Formats Backup Data	208
Transaction Log Location	210
Replication Order.....	211
Benefits of using Replication?.....	212
Multiple Threads Replication.....	212
Improved System Logs Monitoring.....	214
Replication Close to Real-Time.....	214

Replication of Individual Backup Set Only.....	215
Retention Policy for Replicated Data	215
Flexible Deployment Options	215
Quick Recovery of Backup Sever	215
Replication of v6 backup sets on AhsayCBS v7	216
Requirements	217
Limitations	217
Before Getting Started	218
Requirements and Best Practices.....	218
License Information	218
Version / Platform Compatibility	218
Replication Server Storage Requirement.....	218
Location of the Replication Server	219
AhsayCBS Replication Partitioning	220
Replication Performance Tuning.....	220
AhsayCBS Java Heap Size Setting	220
Firewall Settings	221
Do Not Deploy the Backup Server and Replication Server on a Single Machine.....	221
Dedicated Restore Drive on Replication Server	221
Storage Requirement on Replication Server	221
Replication Server with Multiple Receivers	222
Replication Using Cross Over Cable.....	222
Deployment Options and Comparison.....	223
Deployment Method	223
Major Features Comparison between Deployment on AhsayCBS and Cloud Storage	227
Deployment Combinations of Backup and Replication Servers.....	229
Deployment.....	230
Major Steps to Deploy a Replication Service	230
Configuration on the Replication Receiving End	231
Create a Replication User Account	231
Editing Replication Receiver	234
Configuration on the Replication Sending End.....	235
Configure Replication from AhsayCBS Backup Server to AhsayCBS Receiver (CBS v7 to CBS v7).....	235
Configure Replication from AhsayOBS Backup Server to AhsayCBS Receiver (OBS v6 to CBS v7)	238
Configure Replication from AhsayCBS Backup Server to a Predefined Destination (CBS v7 to Cloud/FTP)	239
Other Replication Settings	241
Traffic Limit.....	241
Replicate Individual Backup Sets.....	242

Setting the Number of Backup Sets to Replicate Concurrently	244
Cyclic Redundancy Check (CRC) Checking	244
Recovery Process Overview	246
Recovery Methods	248
Method 1 - Rebuild AhsayCBS from Replication.....	248
Method 2 - Rebuild from Auto Save	250
Method 3 - Startup Replication Server as Backup Server	254
Extract Data from Replication Destination	259
Getting Started	259
To check replication logs on the Backup Server:	259
To check the replication logs on the Replication Server:	260
Extract from AhsayCBS Replication Server	261
Extract from a Predefined Destination - Cloud storage	265
Extract from the FTP/SFTP	267
Extract from the Local/Mapped Drive/Removable Drive.....	269
Extract from v6 Replication	270
Extract Snapshot from Retention Area.....	274
Restore Replication Data	277
Restore Replication Data to the Backup Server	277
Restore Raw Data Using AhsayOBM / AhsayACB	280
8 Configuring Redirector.....	282
Hosting a Redirector	284
Joining Redirector	285
Advanced Setup.....	286
Setup Wild Card Certificate	286
Setup Replication in Redirector Server Group	286
Multiple Redirector Setup	286
9 Monitoring Activities	289
Set up a Read-only Admin Account for Operators.....	289
Dashboard	291
To Dos.....	291
Viewing options	292
Missed Backups	293
Failed Backups	294
System Errors.....	295
Replication Errors	295
API Errors.....	296
Email Errors.....	297
Overview	298
CPU.....	299

Memory	300
Storage.....	301
Live Threads.....	302
Live Activities	303
Backup Status	303
Restore Status.....	304
Replication.....	306
Receiver	306
Redirection	307
Administration Logs.....	308
SNMP Log	308
Message History.....	308
Activities Log	309
Audit Trails	309
Backup / Restore Logs.....	310
Backup Jobs.....	310
Restored Jobs	310
Backup Errors.....	311
Backup Set Log	311
Activities Log	311
Replication Log	312
Sent to Receiver.....	312
Received from Other Backup Servers.....	312
Activities Log	313
Redirection Logs	314
Enable Third Party Monitoring Tools.....	314
10 Branding the AhsayCBS	315
Prerequisite.....	315
Before Getting Started	315
Prepare Branding for AhsayCBS Interface	316
Prepare Branding for AhsayOBM/AhsayACB	322
Brand the AhsayCBS Interface and AhsayOBM/AhsayACB Installers for your Resellers	337
Customize Application Name on Cloud Storages	339
Request for Permission Pages	339
Customize the Folder/Bucket name in Standard Destination	345
Customize the Storage in Predefined Destination.....	346
11 API.....	347
12 Contacting Ahsay	348
Technical Assistance	348

Documentation	348
Appendix	349
Appendix A Supported Language Code.....	349
Appendix B Supported Time Zone	350
Appendix C Error Code 1011 and 1012	355
Appendix D Differences between AhsayOBS v6 vs AhsayCBS v7	356
Appendix E Setting up Cloud Storage.....	357
Appendix F Image Specifications.....	382
Appendix G Comparison on Different Replication Setup Environments	427
Appendix H System Job	428
Appendix I Daily User Report	430
Appendix J System Files for Continuous Backup Exclusion	443

1 Overview

What is this software?

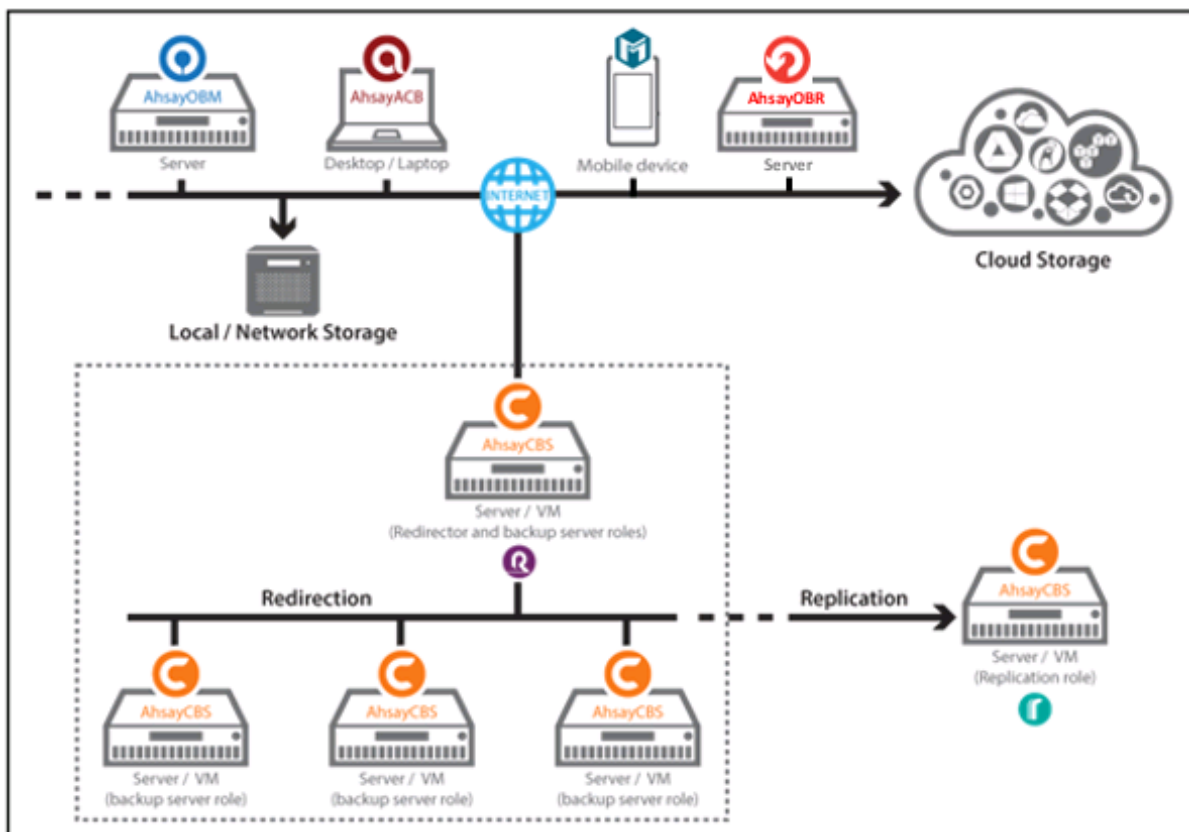
AhsayCBS is a web-based centralized management console for backup service administrators or users to manage backup and restore, and to monitor backup, restore, replication and redirection activities. Administrators can create backup user accounts, manage group policies, and keep track of system performance and health.

Administrators can create sub-admin or reseller accounts so that they can manage the backup users by themselves. In addition, non-admin operator accounts with read only permission can be created to help backup service administrator to monitor daily backup and restore jobs, as well as system activities.

To further safeguard the data hosted on the Backup Server, AhsayCBS comes with replication feature to replicate the backup data offsite to a Replication Server hosted in another site or to commercial cloud storages such as network storage, FTP/SFTP and common cloud storages (Google Drive, Dropbox, OneDrive, Amazon Drive, Box, etc.)

System Architecture

Below is a diagram illustrating the relationship among the AhsayCBS, client components and server components.



AhsayCBS System Components

Client Components

Below is a brief introduction of the **three** client backup agents.



AhsayOBM is a versatile backup application that backup databases, applications and virtual machines to local and offsite destinations, e.g. local storage, on premise Backup Server or Backup Server located in datacenters, and common cloud storages (Google Drive, Dropbox, OneDrive, Amazon Drive, Box, etc.)

All the backup data are compressed and encrypted before uploading to the Backup Server, while the restore process would require downloading the compressed and encrypted data onto the client computer for decryption and un-compression.

AhsayOBM allows the creation of multiple backup sets, and backup file, databases and virtual machines such as **VMware, Hyper-V, Microsoft Exchange Database Availability Group (DAG), Microsoft Exchange Database, Microsoft Exchange Mailbox, Microsoft SQL Server, Oracle Database, Lotus Domino/Notes, MySQL, Office365 Exchange Online, Cloud File, and Windows Bare Metal** with our dedicated backup modules.

Refer to the URL below to obtain the Quick Start Guide of AhsayOBM for instructions on installing the software, running a backup job and restoring backed up data.

Windows	Click to obtain the v7 Quick Start Guide
Mac	Click to obtain the v7 Quick Start Guide
Linux (CLI)	Click to obtain the v7 Quick Start Guide
Linux (GUI)	Click to obtain the v7 Quick Start Guide
Synology	Click to obtain the v7 Quick Start Guide



AhsayACB is an advanced yet easy-to-use desktop and laptop backup software for backing up files, Cloud files, Windows System backup and IBM Lotus Notes to local and offsite destinations, e.g. local storage, on premise Backup Servers or Backup Servers located in datacenters, and common cloud storages (Google Drive, Dropbox, OneDrive, Amazon Drive, Box, etc.)

All the backup data are compressed and encrypted before uploading to the Backup Server, while the restore process would require downloading the compressed and encrypted data onto the client computer for encryption and un-compression.

Refer to the URL below to obtain the Quick Start Guide of AhsayACB for instructions on installing the software, running a backup job and restoring backed up data.

Windows	Click to obtain the v7 Quick Start Guide
Mac	Click to obtain the v7 Quick Start Guide



As a comprehensive backup solution to Android and iOS mobile devices, AhsayMOB's user-friendly interface allows users to quickly configure backup settings and easily back up important data on their smartphones, such as photos, videos and contacts.

You can choose to enable or disable the backup data encryption feature according to your preference. If you choose to disable the encryption feature, some backup data (e.g. photos or videos) backed up to the cloud storage can be viewed directly from there.

Below is a table showing the supported Cloud Backup Destinations and supported Backup Data Type on both platforms.

Supported Cloud Backup Destinations		
	iOS	Android
AhsayCBS Storage	✓	✓
Google Drive	✓	✓
Dropbox	✓	✓
OneDrive	✓	✓
Supported Backup Data Types		
	iOS	Android
Photo	✓	✓
Video	✓	✓
Contact	✓	✓
Voice File	X	✓
Message (SMS)	X	✓
WhatsApp	X	✓

Refer to the URL below to obtain the User Guide of AhsayMOB for instructions on installing the software, running a backup job and restoring backed up data.

iOS	Click to obtain the User Guide
Android	Click to obtain the User Guide

Below is a brief introduction of the client restore agents.



AhsayOBR allows the restore job of multiple backup sets, and backup file, databases and virtual machines, such as **VMware, Hyper-V, Microsoft Exchange Database Availability Group (DAG), Microsoft Exchange Database, Microsoft Exchange Mailbox, Microsoft SQL Server, Oracle Database, Lotus Domino/Notes, MySQL, Windows System, Windows System State, ShadowProtect, Synology NAS Devices, Office365 Exchange Online, Cloud File** with our dedicated restore modules.

While you can still download Client Backup Agent (AhsayOBM/ AhsayACB) to restore data on computer, AhsayOBR gives a quick, direct and secure solution just for the data restore purpose. Below is a table comparing some major features of both tools, and the pros and cons of using them.

Feature	Tool	Pros	Cons
Installation	AhsayOBR	<ul style="list-style-type: none"> No installation required Faster to launch 	Required to launch every time when you use
	Client Backup Agent	One-time installation	Larger installer size hence longer installation time
Run Direct Restore	AhsayOBR	N/A	Run Direct restore for VMware and Hyper V servers is NOT supported. Since AhsayOBR is not a Client Backup Agent and therefore NFS is not bundled along with the software. NFS is a mandatory item for performing Run Direct restore for VMware and Hyper-V servers.
	Client Backup Agent	Support Run Direct restore for both VMware and Hyper-V servers.	N/A
OpenDirect Restore	AhsayOBR	OpenDirect restore allows you to view and download individual files from a compressed or image file, without having to restore compressed file or image file first. OpenDirect restore gives you the flexibility to restore selective file(s) quickly, so it saves you time and effort to achieve your restore goal.	To ensure optimal restore performance, the backup of the files in an OpenDirect file backup set will NOT be encrypted and compressed, therefore, you may have to take these factors in consideration when selecting this restore option.
	Client Backup Agent		
	AhsayOBR		

Granular Restore	Client Backup Agent	In some cases, you may only need to restore a few individual file(s) from the guest VM, therefore, granular restore gives you a fast, convenient, and flexible tool to restore selected file(s) from a guest VM quickly.	To make ensure optimal restore performance, the backup of the guest VM will NOT be encrypted and compressed, therefore, you may have to take this factor in consideration when using this restore method.
Cross platform usage	AhsayOBR	Although both tools are available for use on various platforms, e.g. Windows, Mac, Linux, etc., cross platform restore is NOT recommended. For example, files backed up on Windows are not recommended to restore on a Mac/Linux machine.	
	Client Backup Agent		
Compatibility	AhsayOBR	Support restore of backup set created on either AhsayACB / AhsayOBM	N/A
	Client Backup Agent	N/A	Support restore of backup set created by the same type of Client Backup Agent only. E.g. backup set created on AhsayOBM can only be restored by AhsayOBM.

Refer to the URL below to obtain the User Guide of AhsayOBR for instructions on installing the software, running a backup job and restoring backed up data.

Windows	Click to obtain the v7 User Guide
Mac	Click to obtain the v7 User Guide
Linux (GUI)	Click to obtain the v7 User Guide

Server Components

There are **three** server components: Backup Server, Replication Server, and Redirector. You can manage these components by logging to AhsayCBS with an admin role account. The following screen shows the AhsayCBS server components.

Backup Server

The Backup Server is a platform for backup clients to perform backup to its local hard disk, network storage, FTP/SFTP and common cloud storages such as Google Drive, Dropbox, OneDrive, Amazon Drive, Box, etc.

All the backup jobs, with the exception of File, VMware, and Hyper-V backup sets with either Run Direct and or Open Direct / Granular feature enabled, are compressed and encrypted before uploading to the Backup Server, while the restore process would require downloading the compressed and encrypted data onto the client computer for decryption and un-compression.

Replication Server

Replication Server offers close to real time replication of the Backup Server (backup server configuration files, user profiles & backup set settings, and backup data hosted on the backup server), so that when your production Backup Server is out of service, you can switch the Replication Server into Backup Server in a short period of time to reduce potential downtime of your backup service.

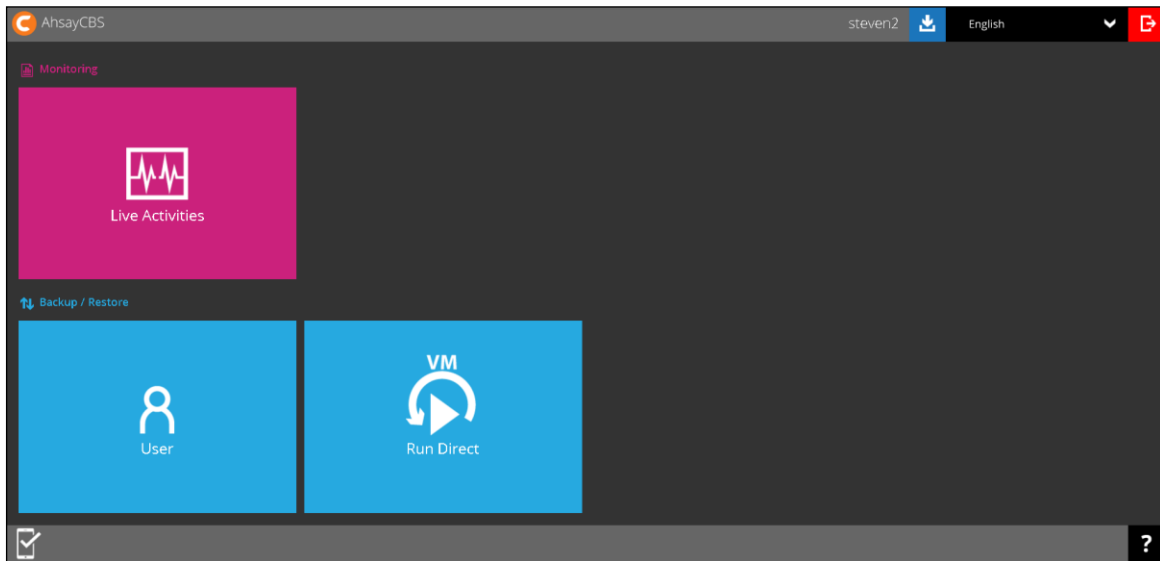
Redirector

With the use of Redirector in conjunction with multiple Backup Server machines, it forms a cloud backup architecture for servicing as many backup customers as needed with a single public URL. All backup users will use the single URL as the initial contact server, even though they reside on different Backup Servers under different URLs. Thus, an online backup provider can add new Backup Server machines to serve new customers, or relocate existing backup accounts from one Backup Server to another easily without the need for the existing users to reconfigure the backup server address in AhsayOBM or AhsayACB.

Agentless Backup / Restore

AhsayCBS v7.9.0.0 or above supported agentless backup and restore, which does not require any AhsayOBM/ AhsayACB backup agents to be installed on the client machine. Instead, Cloud File and Office 365 Exchange mailbox backup or restore jobs will be performed directly by the AhsayCBS server itself. For VMware ESXi/vCenter backup sets backed up to AhsayCBS, the guest VMs can be recovered using the agentless restore feature which supports both Run Direct and Non Run Direct method.

Below is the main user interface of the AhsayCBS (user role), also known as AhsayCBS User Web Console, where your clients login to and perform the agentless backup/restore and Run Direct restore.



There are three backup sets that support agentless backup and restore in AhsayCBS v7.9.0.0 or above:

- 1 **Cloud File Backup and Restore**

You can now back up your data stored on Cloud storage to the AhsayCBS or other cloud backup destination.

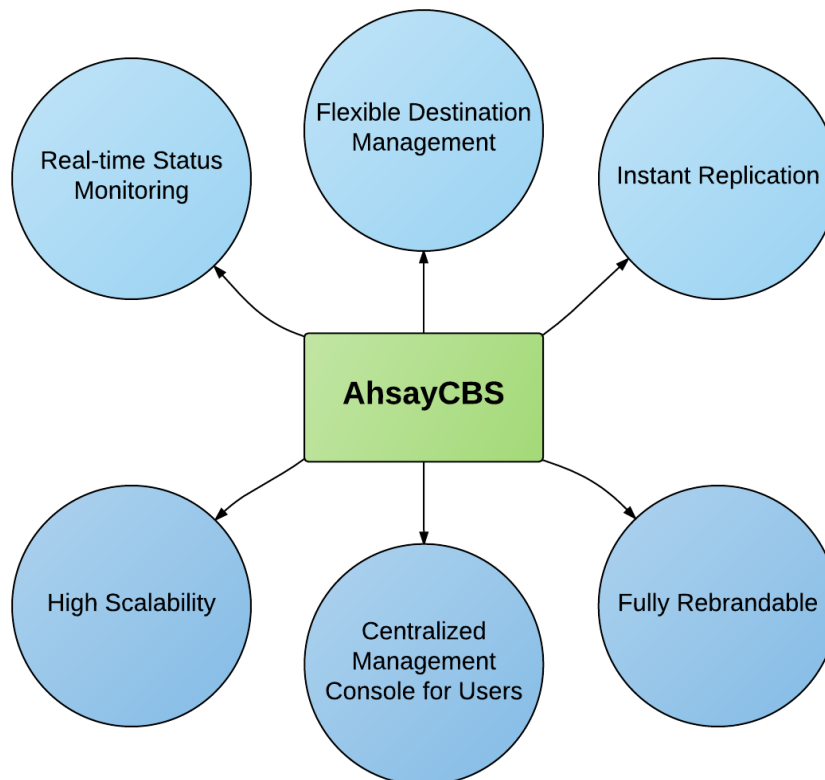
- 2 **Exchange Online Mailbox Backup and Restore for Office 365**

You can now back up mail objects from your Office 365 mailbox, and then restore them to your original account or another user under the same Office 365 Exchange Online account, all on the AhsayCBS without having to install a client backup agent first.

- 3 **Run Direct of VMware vCenter/ESXi VM from AhsayCBS server**

You can now perform a Run Direct restore of the VMware vCenter/ESXi VM directly using the AhsayCBS without the presence of a client backup agent (AhsayOBM/AhsayACB/AhsayOBR).

Why should I use AhsayCBS to manage my backup users and system?



Real-time Status Monitoring

Monitor System Health and Backup/Restore Status, Anytime Anywhere – the AhsayCBS user interface (UI) has been fully enhanced to provide you with a user-friendly and informative view of various kinds of information you need. Highlighted features including:

- A dashboard to view the system usage and performance
- Live Activities panel to view real-time status of backup, restore, replication, redirection, etc.
- Panels to view all log files of backup, restore, replication and redirection



Flexible Destination Management

Wide range of backup destination options – to offer you with the greatest flexibility of backup destination, AhsayCBS now supports local drive, mapped network drive, FTP / SFTP server, and public cloud object storage as the backup destination for storing the backup data.

Below is a full list of the supported cloud storage:

Aliyun (阿里云) *	CTYun (中国电信天翼云) *	Amazon S3	Amazon Cloud Drive
Google Cloud Storage	Google Drive	OneDrive	Microsoft OneDrive / OneDrive for Business
Rackspace	OpenStack	Microsoft Azure	Dropbox

FTP	SFTP	AWS S3 Compatible Cloud Storage	
-----	------	---------------------------------------	--

* Available on computers with China or Hong Kong local settings

Cloud backup gives you **two major advantages**:

- 🔵 **Multi-destination Backup for Extra Protection** – you can now back up your database, files or data to both local drive and cloud destination. While local drive backup gives you the convenience of faster backup and restore as a result of the locally resided infrastructure, you can take a further step to utilize the cloud backup to give you an extra layer of protection in the event of a local drive corruption, where you will still be able to retrieve data from the cloud destination.
- 🔵 **Eliminate Hardware Investment** – with the increasingly affordable cloud storage cost, you can deploy on cloud platform and utilize cloud storage as your centralized data repository, or simply expand your cloud storage as a backup destination without having to invest on hardware.



Instant Replication

Extra layer of data protection – the replication server provides an additional layer of data protection by providing an offsite backup store for backing up data from either a single or multiple AhsayCBS servers. The Ahsay replication process is close to real-time and hence this will reduce the probability of significant data loss in the event of an AhsayCBS outage. The synchronization process does not require stopping or interrupting any backup operations. As the replication module will be replicating the backup data in 4 modes, pending, sleep, resync and replay mode.

Furthermore, you have flexibility to select specific user's backup set from the backup server to replicate instead of replicating all users and backup sets. The replication speed has also been enhanced by utilizing the multiple thread replication technology.

Refer to the [Replication](#) section for further details.



High Scalability

Easy system expansion for your business growth – as your business continues to grow, you need greater storage and backup capabilities to keep all your data safe and protected. With AhsayCBS, you can always scale up the whole backup system. With the program's built-in redirection module, you can redirect the extra user traffic to other AhsayCBS servers to manage your growing volume of data easily.

We understand that expanding backup system could be a difficult situation when you have to deal with multiple domain servers, a high scalable backup system should make this kind of transition as seamless as possible to users. Our Redirector is exactly designed to work for this solution.

Refer to the [Configuring Redirector](#) section for further details.



Fully Rebrandable

Rebrand and customize to best cater your clients' needs – All graphics and wordings in AhsayCBS are rebrandable and customizable for MSPs. Thus, you can use a rebranded AhsayCBS to build your branded backup appliance for customers who preferred on-site backup solution.



Centralized Management Console for Users

Monitor and Manage Backup without Client Backup Agent – our enriched features on the centralized web console offers users a one-stop location for running and configuring backup jobs, monitoring backup and restoring activities, and initiating a Run Direct restore.

For further instructions on using the User Web Console, refer to the [Ahsay CBS User Guide](#).

2 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 administrator 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 all administrative tasks on the AhsayCBS server. You will also learn about new features such as Run Direct restore, backup and restore of Office 365 Exchange, and Cloud File Backup to back up your data on cloud storage.

Who should read this document?

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

Where can I get information about System Requirements and Settings for installing the AhsayCBS?

Before you read through this Administrator's Guide for information on managing all administrative tasks on AhsayCBS as an administrator, you should have the AhsayCBS installed first. Refer to the [Ahsay Cloud Backup Suite Quick Start Guide](#) for instructions on software installation, system requirements, network and firewall settings.

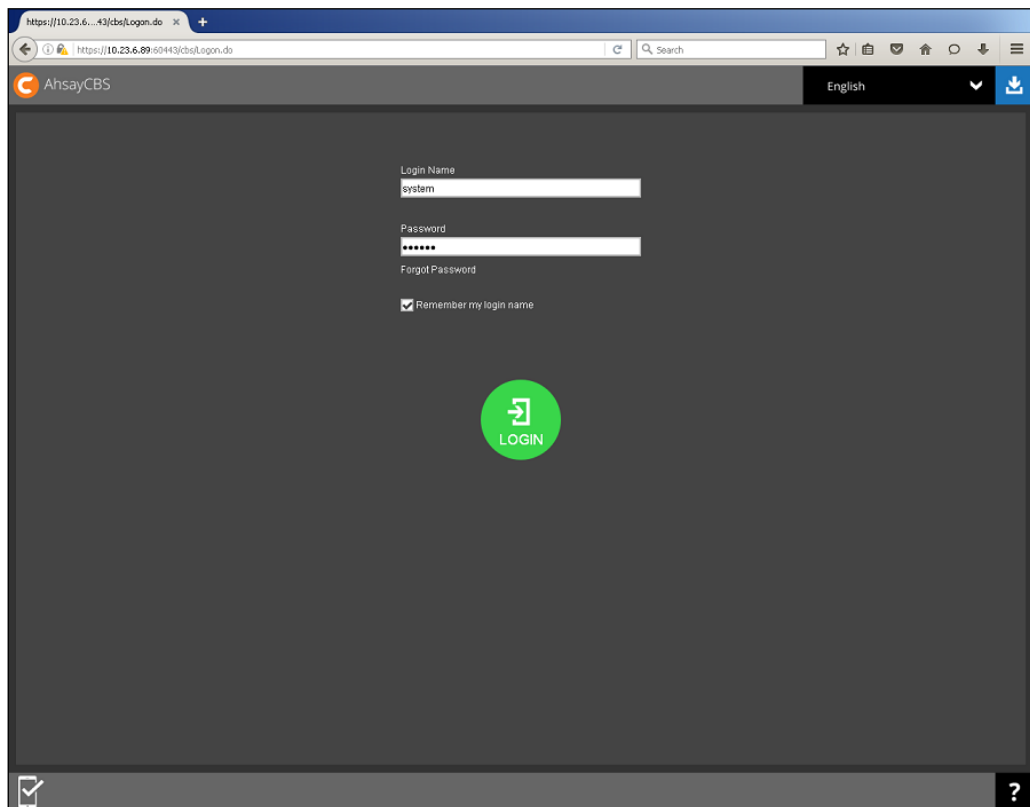
3 Log in to AhsayCBS Server

Log in to AhsayCBS Web Management Console

1. Enter the IP address or domain name on a web browser.
https://<IP_Address:port_number/>
2. Enter the system **login name** and **password**. The default login credential are:

Login Name: system

Password: system

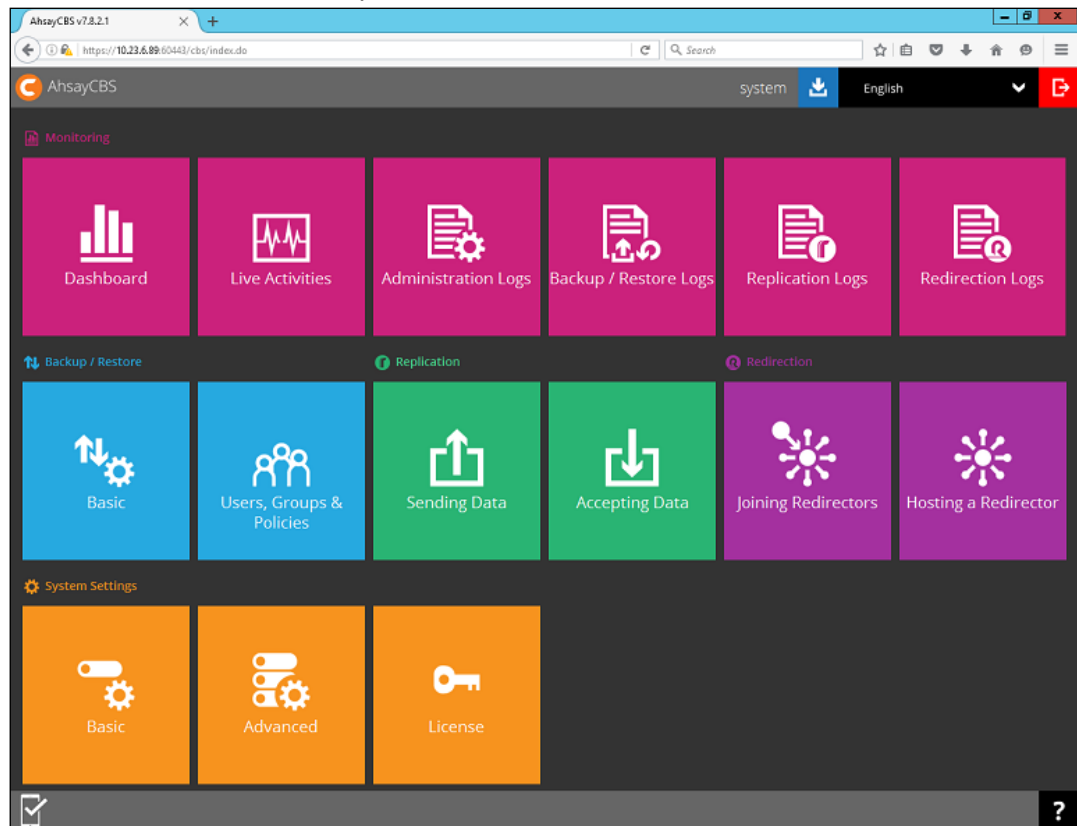


3. Click the green **Login** button to login.

Forgot your Password?

If you have forgotten your system or administrator password, please refer to the following KB article for instructions. [FAQ: How to recover AhsayCBS system account password? \(5122\)](#)

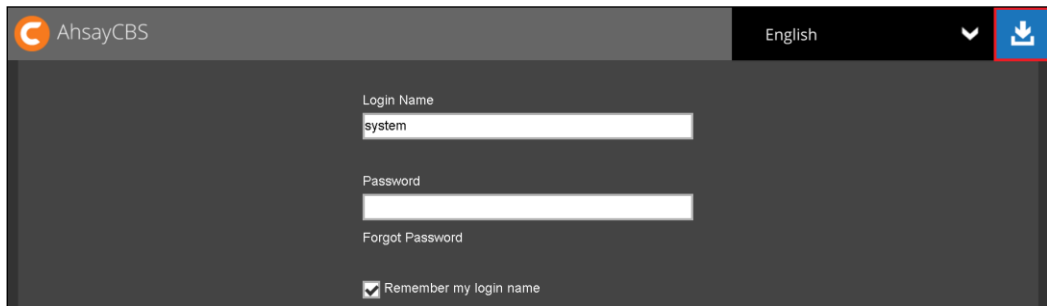
4. The following screen appears with five sections: **Monitoring**, **Backup / Restore**, **Replication**, **Redirection**, and **System Settings**. Each of these sections will be described in detail in later chapters.



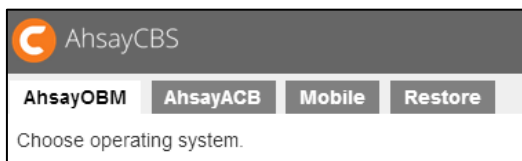
Download Client Backup Agents

You can choose the client software you wish to download as follows.

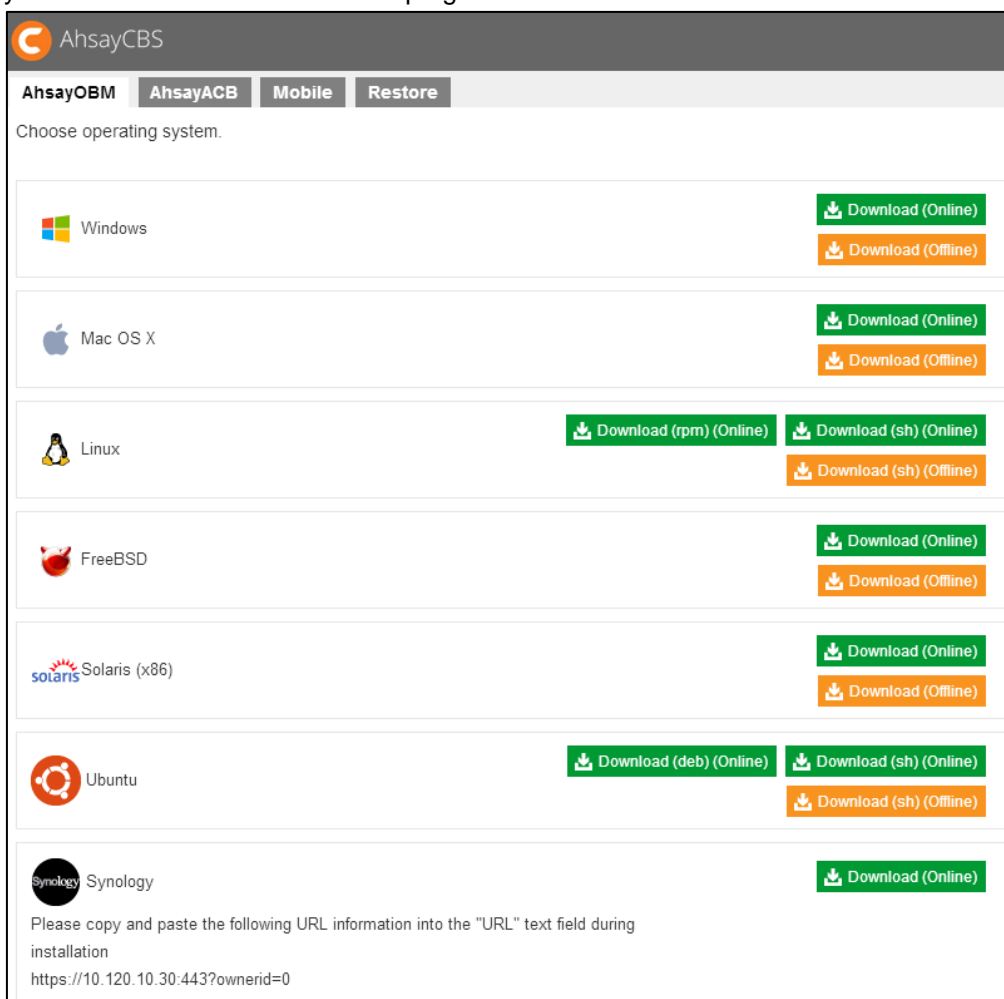
1. On the AhsayCBS Logon page, click the downward arrow on the top right hand corner.

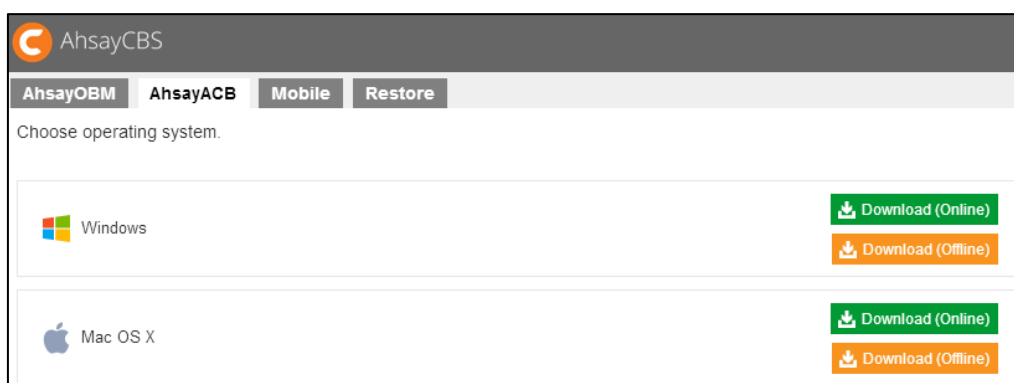


2. Click on the tab with the name of the client backup agent you wish to download.



3. Click on the **Download (Online)** or **Download (Offline)** button of the platform on which you wish to install the client backup agent.





From v7.15.0.0 onwards AhsayCBS support two installation modes, online and offline installation (except for Linux (rpm), Ubuntu (deb) and AhsayMOB 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	<ul style="list-style-type: none"> ➤ 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. 	<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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.

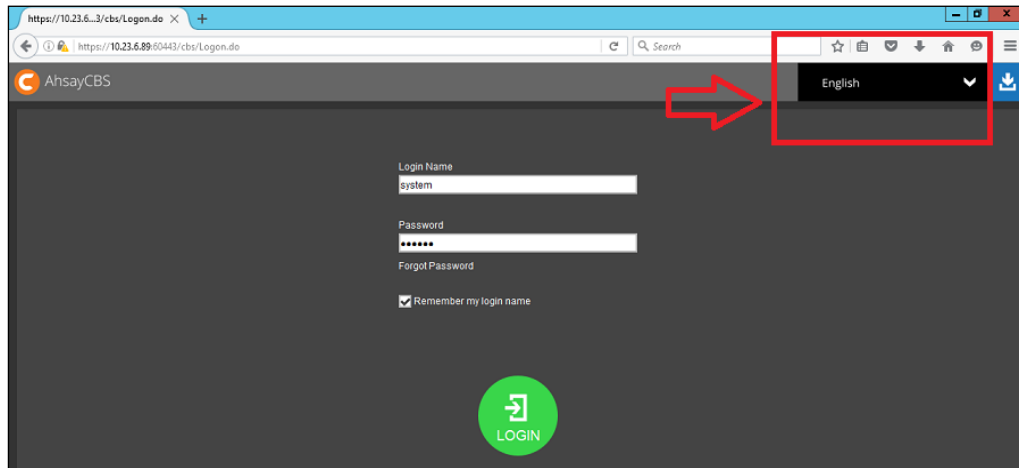
Version Control	Online installation ensures the latest version of the product is installed.	May need to update the product version after installation if an older offline installer is used.
Administrative Support	Need more time on the support for the installation as network factor might lead to unsuccessful installation.	Need less time as independent of network factor influence.
Deployments	<ul style="list-style-type: none"> ➤ Suitable for single or small amount of device installations. ➤ Suitable for client sites with fast and stable internet connection. 	<ul style="list-style-type: none"> ➤ Suitable for multiple or mass device installations. ➤ Suitable for client sites with metered internet connections.

For instructions regarding installation of the client backup agent, refer to the [Client Components](#) section for the URL to obtain the Quick Start Guide.

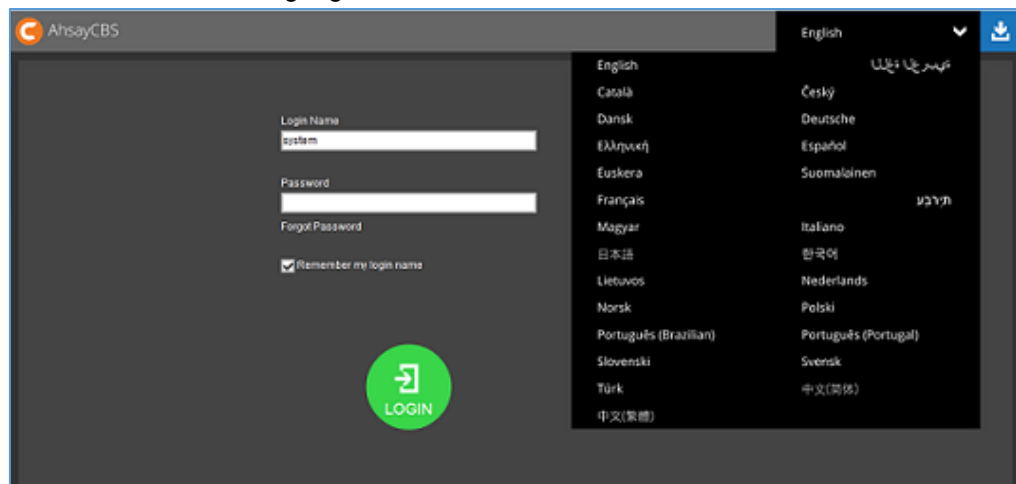
Change the Language

You can change the language shown on AhsayCBS web console

1. To change the display language, click on the dropdown box on the top right of the screen to select another display language.



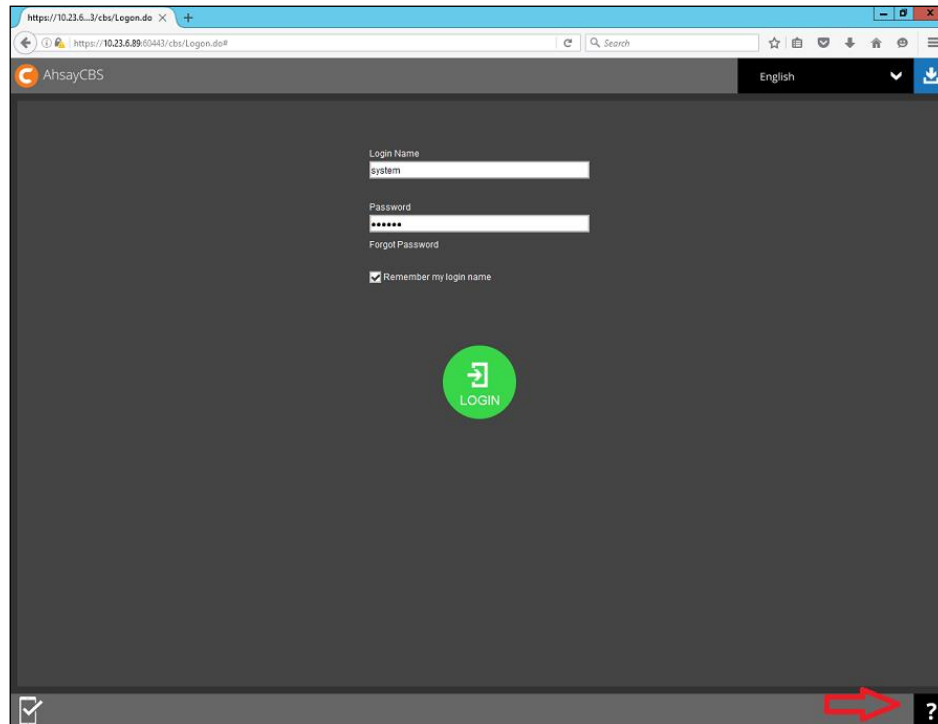
2. Click on the desired language from the list.



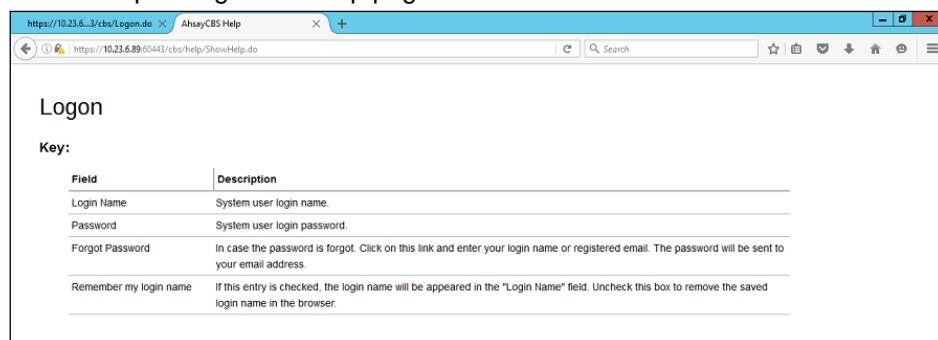
Invoke Online Help

You can invoke the online help on most of the pages while navigating the AhsayCBS. The online help aims at providing instructions on operation on the corresponding page.

1. Click on the question mark at the bottom right corner.



2. The corresponding online help page shows.



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

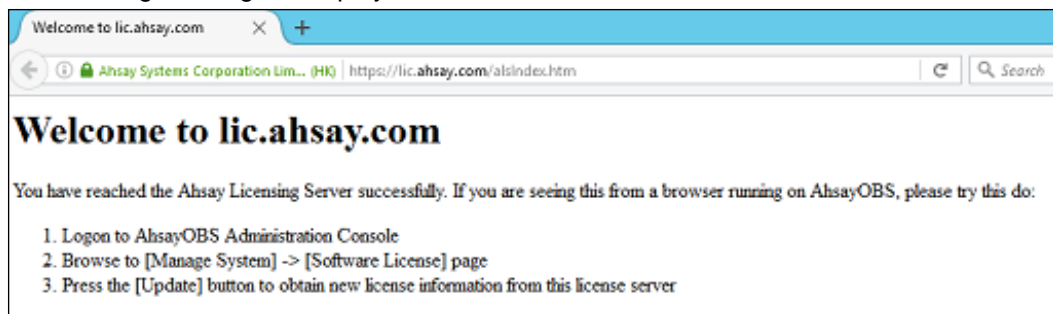
4 Managing License

Verify License Connectivity

The AhsayCBS server is required to access the Internet and to connect to the Ahsay License Server (lic.ahsay.com) using https protocol for license activation, daily license checks, and license CAL updates. Make sure your firewall settings are configured to allow outbound connections to lic.ahsay.com via port 443 using TLSv1.

To verify Ahsay license connectivity you can either:

- 1. Open a web browser on your AhsayCBS and enter the following URL <https://lic.ahsay.com> the following message is displayed when the connection is successful.



-OR-

- 2. Use the **telnet** command to check the connection on your AhsayCBS server.

```
# telnet lic.ahsay.com 443
Trying 203.186.85.237...
Connected to lic.ahsay.com.
Escape character is '^['.
```

Use the **openssl s_client** command to check whether TLSv1 is enabled.

```
# openssl s_client -connect lic.ahsay.com:443 -tls1
CONNECTED(00000003)
depth=3 C = US, O = "The Go Daddy Group, Inc.", OU = Go Daddy
Class 2 Certification Authority
verify return:1
depth=2 C = US, ST = Arizona, L = Scottsdale, O = "GoDaddy.com,
Inc.", CN = Go Daddy Root Certificate Authority - G2
verify return:1
depth=1 C = US, ST = Arizona, L = Scottsdale, O = "GoDaddy.com,
Inc.", OU = http://certs.godaddy.com/repository/, CN = Go Daddy
Secure Certificate Authority - G2
verify return:1
depth=0 1.3.6.1.4.1.311.60.2.1.3 = HK, businessCategory = Private
Organization, serialNumber = 0498825, C = HK, ST = Hong Kong, L =
Kowloon, O = Ahsay Systems Corporation Limited, CN = ahsay.com
verify return:1
---
Certificate chain
 0 s:/1.3.6.1.4.1.311.60.2.1.3=HK/businessCategory=Private
Organization/serialNumber=0498825/C=HK/ST=Hong
Kong/L=Kowloon/O=Ahsay Systems Corporation Limited/CN=ahsay.com
```



```

1feC6RUCx8gW9qBoTt17M6o8Jb/SXUN6/mAVsronEG+yyqNXCcUQwNpaKJK5hMkz
0EbBqltS/VyTtW9z0g4vAlPQrgaqCLG/ZJIvBESf8wvsgfZNpA==
-----END CERTIFICATE-----
subject=/1.3.6.1.4.1.311.60.2.1.3=HK/businessCategory=Private
Organization/serialNumber=0498825/C=HK/ST=Hong
Kong/L=Kowloon/O=Ahsay Systems Corporation Limited/CN=ahsay.com
issuer=/C=US/ST=Arizona/L=Scottsdale/O=GoDaddy.com,
Inc./OU=http://certs.godaddy.com/repository//CN=Go Daddy Secure
Certificate Authority - G2
---
No client certificate CA names sent
Server Temp Key: ECDH, prime256v1, 256 bits
---
SSL handshake has read 6160 bytes and written 289 bytes
---
New, TLSv1/SSLv3, Cipher is ECDHE-RSA-AES256-SHA
Server public key is 2048 bit
Secure Renegotiation IS supported
Compression: NONE
Expansion: NONE
SSL-Session:
    Protocol      : TLSv1
    Cipher        : ECDHE-RSA-AES256-SHA
    Session-ID:
6914212983C0321AB9520FFC6E7515845D8836D7B185EF1D2363D3C7EAA85D48
    Session-ID-ctx:
    Master-Key:
79BEC9F9E2C3088F4928229047A21BE9E9239C32D2F79B4DB4FC7CF66098423D0
EF0D64741E3075AEA62E9222D6DD4B2
    Key-Arg      : None
    Krb5 Principal: None
    PSK identity: None
    PSK identity hint: None
    TLS session ticket lifetime hint: 300 (seconds)
    TLS session ticket:
0000 - 8c 55 8e c3 19 9a 34 14-63 67 66 aa 49 7b c9
41 .U....4.cgf.I{.A
0010 - 3f 03 db c1 ec f9 db e1-b6 eb 4f 51 0c 3a 83
9b ?.....OQ:...
0020 - 73 20 93 c1 41 6e 5a ac-f5 65 92 4f b8 92 fb ef
s ..AnZ...e.O....
0030 - 2b 3d f7 f3 03 c8 3a b5-1b 52 9a 5a 43 ba 0a 7d
+=.....R.ZC..}
0040 - 47 e8 6a 22 72 85 9d d2-f1 dd 9d 6d b5 65 8a 0a
G.j"r.....m.e..
0050 - 30 26 1b d9 55 8c 25 65-71 0b a5 1f 57 38 2b 71
0&..U.%eq...W8+q
0060 - 81 f1 c0 4e bd 51 d3 43-b5 41 40 8f 71 3c 72
8d ...N.Q.C.A@.q<r.
0070 - 5a c8 70 72 38 47 a0 b0-4a cd 8b e3 10 48 0c 2e
Z.pr8G..J....H..

0080 - 44 a9 48 9e df 56 7a 9f-e5 00 f4 37 f2 59 ee 2f
D.H..Vz....7.Y./
0090 - eb 3a 33 7b 1e 26 09 d9-cd a4 d8 2e 30 51 80
1a .:3{.&.....OQ..
00a0 - 72 78 ae 0a a8 48 bd 0a-ca 16 23 8a e9 44 db ce
rx...H.....#...D..

Start Time: 1503557290

```



```
Timeout      : 7200 (sec)
Verify return code: 0 (ok)
---
closed
```

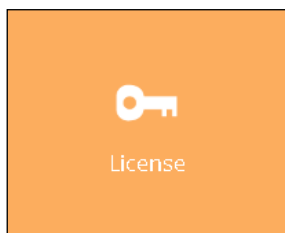
Note

A single license key can only be used on one machine once it has been activated. If you use the same license key to activate another installation of AhsayCBS, you will get an error message. You would be able to run this copy of AhsayCBS for another 14 days. After the 14-day grace period has expired, the AhsayCBS service will stop working completely. Please contact [Ahsay Support](#) for further assistance.

Manage License Key

To manage your AhsayCBS backup server and redirector license keys, do the following:

1. Click the **License** icon under **System Settings** from your AhsayCBS web management console.



2. There are two tabs on the license page. The **Backup** tab is for backup server license, while the **Redirector** tab is for redirector license. You can activate the software on these tabs.

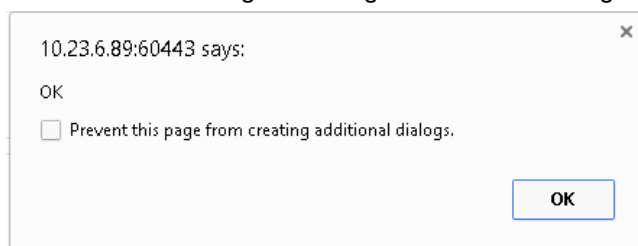
Please make sure that the AhsayCBS license key is applied on the **Backup** tab. If you have purchased a Redirector license key, you need to enter the key in the **Redirector** tab.

Do not enter the AhsayCBS license key on the **Redirector** tab or vice versa.

The screenshot shows the AhsayCBS web interface with the 'Redirector' tab selected. The page title is 'License information and license related utilities.' Below this, there is an 'Overview' section with two input fields: 'Licensee Name' and 'License Key'. A checkbox labeled 'Use Proxy' is also present. The 'Connection Test' section contains a 'Test' button. The 'Update License' section contains an 'Update' button. Below these, there is a table displaying license details:

Product Name	Offsite Backup Software, OEM Edition
Product Version	7.9.0.0
License Type	OEM License
Product Expiry Date	12/31/2016
Maintenance Expiry Date	12/31/2016

3. Enter your **Licensee Name** and **License Key** on the Backup server license page. Both fields are case sensitive. Please enter them exactly as stated in your software receipt.
 - If you are using the evaluation license, you will be able to evaluate the AhsayCBS for 60 days. Just accept the default **Licensee Name** and **License Key** on the page to activate the license.
 - If you have already purchased a license, copy and paste the licensee name and license key into the relevant fields to activate the license.
4. If a proxy server is required to access the Internet from AhsayCBS, check the **Use Proxy** checkbox. Refer to the [Proxy Tab](#) section for information on how to set up the proxy server.
5. Press the **Test** button under **Connection Test** section to test the connection with the license server. You get a dialog box with the testing result. Click **OK**.



License Summary and Requirements

The **License Details** section on the Backup Server license page shows a summary of the quota used and licenses available for each of the modules you have subscribed.

Client Software	Quota	Used	Available
AhsayOBM	5100	4	5096
AhsayACB	2000	0	2000
Add-on Modules for AhsayOBM			
	Quota	Used	Available
Microsoft Exchange Mailbox (Per Mailbox)	2000	20	1980
Hyper-V (Per Guest VM)	2000	10	1990
VMware (Per Guest VM)	2000	10	1990
Hyper-V (Per Socket)	2000	0	2000
VMware (Per Socket)	2000	0	2000
NAS	10	1	9
Mobile	2000	0	2000
Office 365 Exchange Online Backup	2000	0	2000
OpenDirect / Granular Restore	0	0	0
Add-on Modules for AhsayACB			
	Quota	Used	Available
Office 365 Exchange Online Backup	2000	0	2000
Server Add-on Modules			
	Quota	Used	Available
AhsayOBM Replication Module	5100	0	5100
AhsayACB Replication Module	2000	0	2000
High Availability	0	0	0
AhsayUBS	1	0	1
AhsayCBS	1	1	0

Client Software	License quota and availability for client backup agents (AhsayOBM & AhsayACB)
Add-on Modules for AhsayOBM	License quota and availability for add-on modules for AhsayOBM Click here to view a list of all available add-on modules
Add-on Modules for AhsayACB	License quota and availability for add-on modules for AhsayACB Click here to view a list of all available add-on modules
Server Add-on Modules	License quota and availability for server add-on modules, e.g. Replication module, AhsayUBS, AhsayCBS, etc.
VMware Backup Module	Per Guest VM to back up or Per CPU socket
Hyper-V Backup Module	Per Guest VM to back up or Per CPU socket
Support Languages	Supported languages for UI display. The availability of support languages is subject to your license key. For license related inquiries, please contact the Sales team at Ahsay by email at sales-kb@ahsay.com or call our International Sales Hotline +852 3580 8091.

Upgrade from v6 to v7

Since the AhsayCBS license module is introduced in version 7, if you are upgrading from v6, you need to purchase one extra AhsayCBS license module for each of your existing v6 backup server license. Make sure you have valid maintenance before you perform the upgrade/migration.

If you utilize only one AhsayOBM across multiple physical/virtual devices in previous v6 version, you will need to purchase supplement AhsayOBM when you upgrade to v7.

The **VMware** and **Hyper-V** license modules are charged per guest VM. Since version 7.7, there are new options for **VMware** and **Hyper-V** license module to be charged per CPU socket. Existing backup set that are charged per guest VM will not be affected.

Note

For license to charge by socket, the AhsayOBM has to be in v7.7 or above to work.

Extra License for Replication Server

If you are going to replicate the Backup Server to another Replication Server, you need to purchase additional AhsayCBS license module for the replication server.

License for Standalone Redirector

Since the AhsayCBS Redirector license does not come with an AhsayCBS module, for a standalone AhsayCBS Redirector, you will need to purchase one extra AhsayCBS license module with a Backup Server license.

License Requirements for Software and Modules

Software	
AhsayCBS	Per running instance
AhsayOBM	Per device to back up
AhsayMOB	Per AhsayOBM/AhsayACB account that needs to back up mobile device
AhsayACB	Per device to back up
AhsayUBS	Per installation
Module	
VMware Backup Module	Per Guest VM to back up & Per CPU socket
Hyper-V Backup Module	Per Guest VM to back up & Per CPU socket
Office 365 Exchange Online Individual Mailbox Backup Module New in v7.9	Per mailbox to back up
MS Exchange Individual Mailbox Backup Module	Per mailbox to back up
OpenDirect / Granular Restore	Per backup set
NAS Backup Module	Per AhsayOBM account that needs to back up NAS device

Replication Module for AhsayOBM	Per device to replicate
Replication Module for AhsayACB	Per device to replicate
Redirection module	Per device to redirect
For more information about License pricing or license requirements for different software and modules, refer to the Pricing Details page. To purchase license directly, visit the Ahsay Shopping Centre site.	

Automatic License Renewal

If the AhsayCBS is under a monthly leasing plan (meter key), the license key will have an expiry date of 30 days from the current date, the license key is renewed automatically.

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

For meter key inquiries please contact the Sales team at Ahsay by email at sales-kb@ahsay.com or call our International Sales Hotline +852 3580 8091.

License Evaluation Expiry

After the evaluation period expires (60 days after activation), the AhsayCBS service will automatically stop working. Although the service is still active, the AhsayOBM and AhsayACB clients will not be able to connect to perform any backups or restores.

If you would like to continue to use AhsayCBS, please contact the Sales team at Ahsay by email at sales-kb@ahsay.com or call our International Sales Hotline +852 3580 8091.

Offline License Activation

Offline License Activation is used to activate the license keys on AhsayCBS servers that do not have an Internet connection.

Offline license activation is only applicable for OEM license type.

1. Open the License page of AhsayCBS. The two relevant sections are: **Offline License Request** and **Import License**.

Off-line License Request

Import License

No file selected.

License Details

Client Software	Quota	Used	Available
AhsayOBM	5100	4	5096
AhsayACB	2000	0	2000

Add-on Modules for AhsayOBM	Quota	Used	Available
Microsoft Exchange Mailbox (Per Mailbox)	2000	20	1980
Hyper-V (Per Guest VM)	2000	10	1990
VMware (Per Guest VM)	2000	10	1990
Hyper-V (Per Socket)	2000	0	2000
VMware (Per Socket)	2000	0	2000
NAS	10	1	9
Mobile	2000	0	2000
Office 365 Exchange Online Backup	2000	0	2000
OpenDirect / Granular Restore	0	0	0

Add-on Modules for AhsayACB	Quota	Used	Available
Office 365 Exchange Online Backup	2000	0	2000

Server Add-on Modules	Quota	Used	Available
AhsayOBM Replication Module	5100	0	5100

2. Click the **Generate** button to generate an offline license request file, **req.olr**.
3. The **req.olr** file is an encrypted file that contains all the information required for the activation process, for example, MAC address and local IP address. The system will prompt for the location to save the offline license request file.
4. When the offline license request file is ready, please send it to Ahsay Support team. An offline license file, **license.olr**, will be generated and sent back to you. This file is used to offline activate the license key your AhsayCBS server.
5. After you have received the offline license file, you would need to import it to the AhsayCBS server to complete the offline activation process.
6. Click the **Choose File** button under the **Import License** section to select the offline license file (**license.olr**) from AhsayCBS system home. Click the Off-line Update button to complete the license activation process.

License Management Portal

The [Ahsay License Management Portal](#) is for partners to:

- 1. Consolidate purchased Backup Server licenses into License Pool(s).
- 2. Flexibly generate and update Backup Server license(s) as requirements change.
- 3. Improve efficiency on use of Backup Server licenses by sharing CALs (Client Access License) in license pool among multiple Backup Server instances.

Ahsay Systems Corporation Ltd. (HK) | <https://mp.ahsay.com/ahs/jsp/sp/summary.jsp>

Ahsay Backup Software

Home | About Ahsay™ | Forums | Contact Us

License Management Portal

Summary | Manage License Pools | Manage License Keys

Pooled License Quota Usage :

License Type	AhsayOBM (Used / Total)	AhsayACB (Used / Total)
SP OBM	54 / 54	37 / 52
SP Standard	0 / 4	0 / 6
Business	0 / 21	0 / 200

License Pools

Name	License Type	No. of Pool Keys(s)	AhsayOBM	AhsayACB	
csv	OEM	3	0	15	Edit
NTT	OEM	1	23	1	Edit
sss	OEM	0	0	0	Edit
sm	SMB	0	0	0	Edit
aaa	Standard	0	0	0	Edit
NewCompany1-Pool	OEM	2	20	20	Edit
NewCompany2-Pool	OEM	0	0	0	Edit
Ronnie	OEM	0	3	0	Edit
RPS-KEY	OEM	1	0	0	Edit
Servo-Lic-Pool	OEM	1	0	1	Edit

Poolable Licenses

Licensee Name	Product Key	License Type	Free Upgrade Until (yyyy-MM-dd)	AhsayOBM	AhsayACB
---------------	-------------	--------------	---------------------------------	----------	----------

Benefits [Readme](#) [Glossary](#)

- Split / Merge purchased AhsayOBS licenses yourself easily
- Save money by making more efficient use of your existing AhsayOBS licenses by sharing all purchased licenses among different instances of AhsayOBS
- Sub-license your purchased AhsayOBS licenses to your customers easily
- Manage your license more easily. You are no longer required to re-distribute your licenses between different license keys every now and then because as long as the total licenses used by all AhsayOBS instances don't exceed the total licenses available in a license pool, all AhsayOBS instances won't be considered to have their licenses violated.

Features

- Consolidate purchased AhsayOBS licenses into license pools and use AhsayOBS licenses more efficiently
- Share licenses among different AhsayOBS instances using license pools
- Setup different license pools with different license quota limits to control the use of AhsayOBS licenses under different user requirements

With the Ahsay License Management Portal, partners can place purchased Backup Server licenses (Poolable License) into a pool to be shared among multiple Backup Server instances. This process is called converting Poolable License into Pooled License.

Example:

If you have the following 2 licenses:

- 1 LICENSE001 - 50 ACB and 80 OBM
- 2 LICENSE002 - 20 ACB and 30 OBM

You can put these 2 licenses into a single license pool so that you can generate a new license with a maximum of 70 ACB and 110 OBM license CALs or any number of new licenses within these available license CALs.

For more information about the Ahsay License Management Portal, please refer to the following forum articles:

- 1 FAQ: [Ahsay License Management Portal Overview](#)
- 2 FAQ: [How to create a Pool Key from a License Pool](#)

If you would like to continue to use AhsayCBS, please contact the Sales team at Ahsay by email at sales-kb@ahsay.com or call our International Sales Hotline +852 3580 8091.

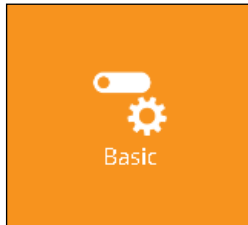
Active Pool Key

After you applied a pool key on your AhsayCBS server, please make sure your AhsayCBS server has an Internet connection and is able to connect the Ahsay License Server at (<https://lic.ahsay.com>). **If AhsayCBS service cannot connect to the Ahsay License Server after 14 days, the license key will be deactivated and the AhsayCBS service will be automatically stopped.**

5 System Settings

Basic Backup Server Configuration

To manage your AhsayCBS basic backup server configurations, simply click the **Basic** icon under **System Settings** from your AhsayCBS environment.



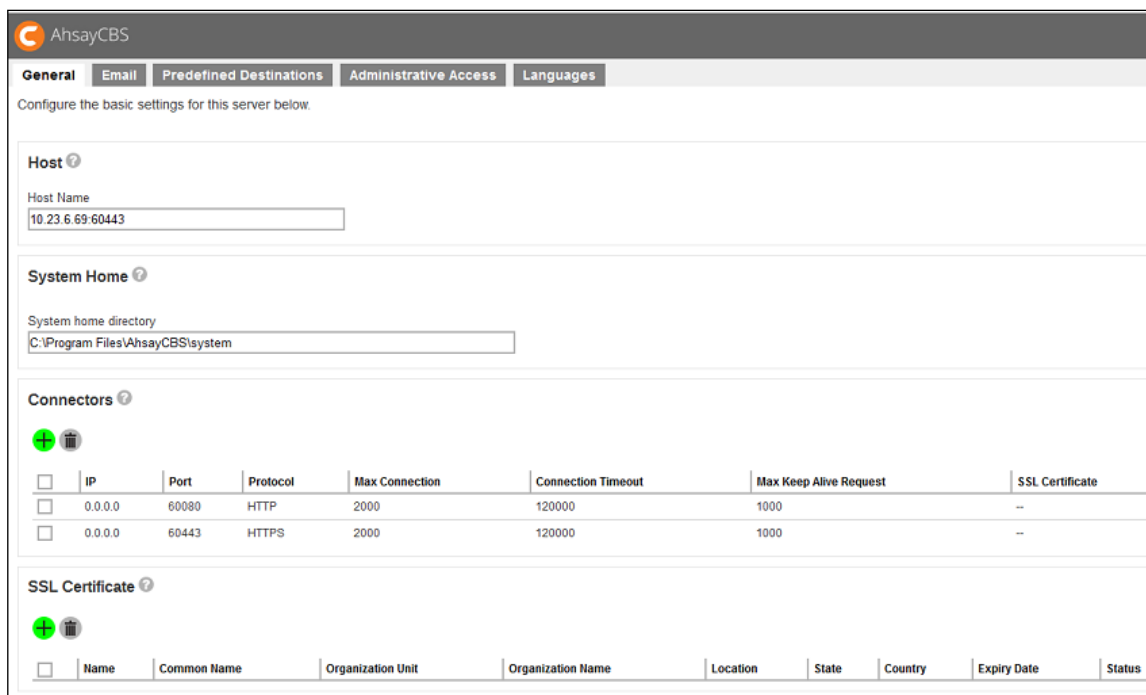
You can perform the following basic configurations on your Backup Server:

- Manage general setup for AhsayCBS
- Manage email settings and general email reports
- Define destinations to store backup or replication data
- Manage Administrator accounts for the MSPs (Managed Service Providers)
- Customize languages available to users on AhsayCBS and User Web Console

There are 5 tabs under basic server configurations, each of which is described below.

General

The following shows the **General** tab under **System Settings > Basic**. It is used for general setup of AhsayCBS. There are several groups of settings under the **General** tab, and they are described below.



AhsayCBS

General | Email | Predefined Destinations | Administrative Access | Languages

Configure the basic settings for this server below.

Host ?

Host Name

10.23.6.69:60443

System Home ?

System home directory

C:\Program Files\AhsayCBS\system

Connectors ?

+ -

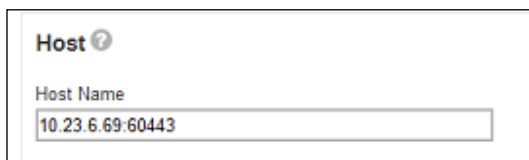
	IP	Port	Protocol	Max Connection	Connection Timeout	Max Keep Alive Request	SSL Certificate
<input type="checkbox"/>	0.0.0.0	60080	HTTP	2000	120000	1000	--
<input type="checkbox"/>	0.0.0.0	60443	HTTPS	2000	120000	1000	--

SSL Certificate ?

+ -

	Name	Common Name	Organization Unit	Organization Name	Location	State	Country	Expiry Date	Status
--	------	-------------	-------------------	-------------------	----------	-------	---------	-------------	--------

Host



Host ?

Host Name

10.23.6.69:60443

This is the host name of your AhsayCBS. You can enter the domain name of your AhsayCBS in the format:

<www.mybackup.com:port_number>

-OR-

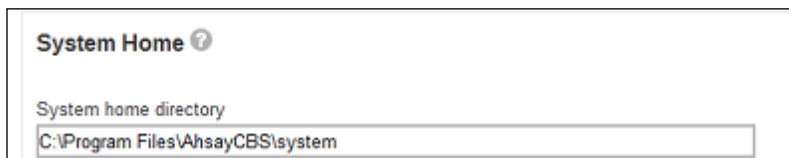
<IP:port number>

IMPORTANT

The host name will be the access link for your users to get access to the AhsayCBS. Since the host name will be used in various locations, such as inside welcome email as a reference point for the users to access the AhsayCBS, inside email as a reference link for the users to recover password, users applying Run Direct restore feature, it is important that you ensure the host name is accessible by users from external network environment.

System Home

This is the system home location of your AhsayCBS. This path is set to your installation home by default.



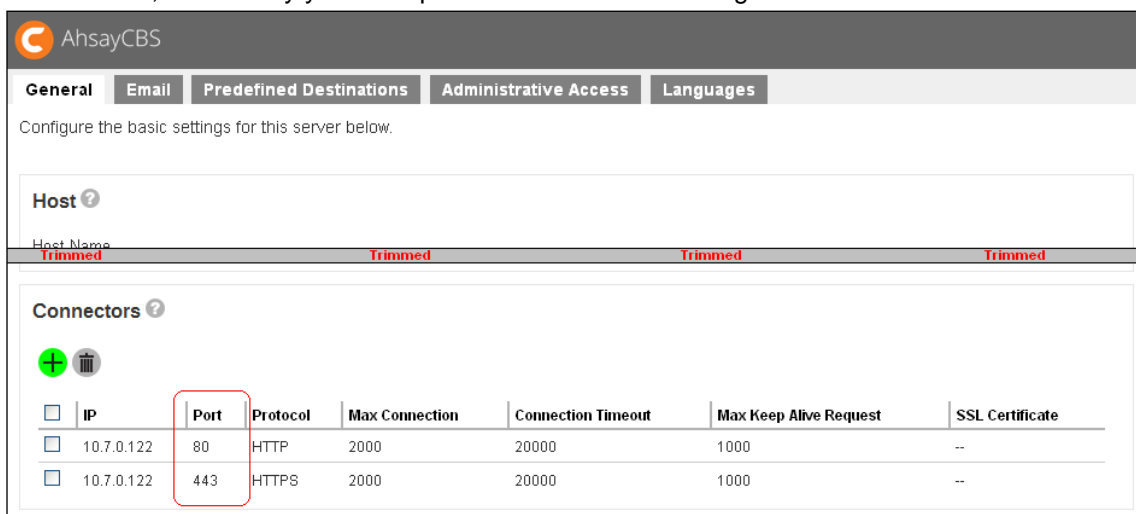
System Home ?

System home directory

C:\Program Files\AhsayCBS\system

Listening to non-standard TCP/IP Port

If you like to run your own web server, or some other services using port 80 and 443. On your AhsayCBS server, you can change the listening TCP/IP port of AhsayCBS from port 80 and 443 to some other port numbers such as port 8080 and 8443, you can modify the connector settings from the AhsayCBS management console -> **System Settings** -> **Basic** -> **General** -> **Connectors**, and modify your new port in the connector settings.



AhsayCBS

General | Email | Predefined Destinations | Administrative Access | Languages

Configure the basic settings for this server below.

Host ?

Host Name

Trimmed Trimmed Trimmed

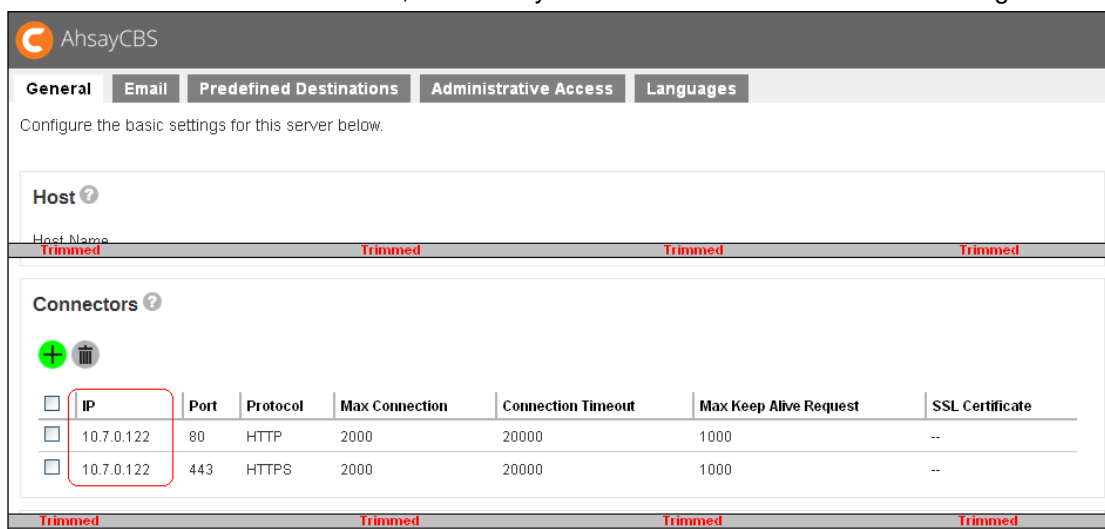
Connectors ?

+ -

<input type="checkbox"/>	IP	Port	Protocol	Max Connection	Connection Timeout	Max Keep Alive Request	SSL Certificate
<input type="checkbox"/>	10.7.0.122	80	HTTP	2000	20000	1000	--
<input type="checkbox"/>	10.7.0.122	443	HTTPS	2000	20000	1000	--

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 AhsayCBS 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). You can modify the connector setting from the AhsayCBS management console -> **System Settings** -> **Basic** -> **General** -> **Connectors**, and modify the IP address in the connector settings.



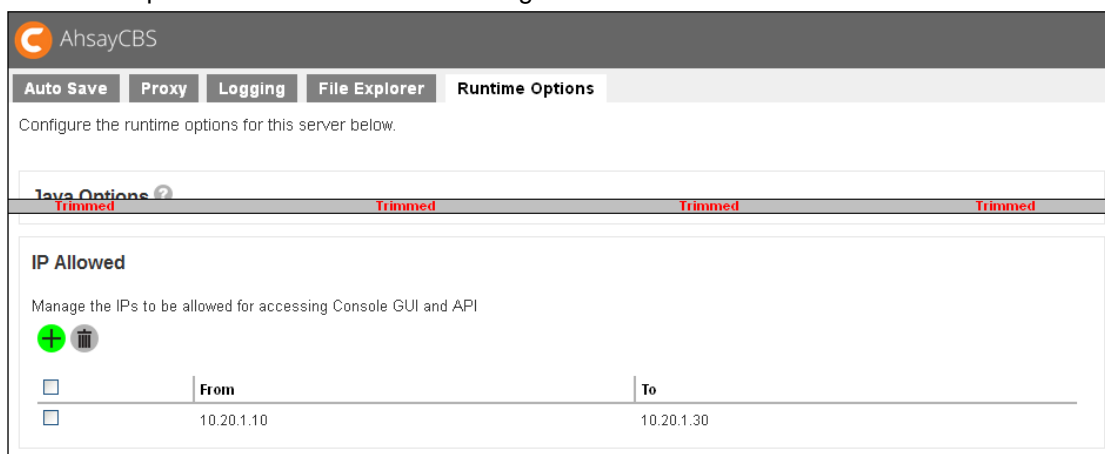
<input type="checkbox"/>	IP	Port	Protocol	Max Connection	Connection Timeout	Max Keep Alive Request	SSL Certificate
<input checked="" type="checkbox"/>	10.7.0.122	80	HTTP	2000	20000	1000	--
<input type="checkbox"/>	10.7.0.122	443	HTTPS	2000	20000	1000	--

Warning

Do not remove the last HTTPS connector in the AhsayCBS. If you remove the last HTTPS connector, you will not be able to login AhsayCBS again.

Restricting access to system page by IP address

For better security, you can restrict access to the AhsayCBS management console by IP addresses. To do so, please add IP restriction in your AhsayCBS management console -> **System Settings** -> **Advanced** -> **Runtime Options** -> **IP Restriction**. You can enter a range of IPs or a specific IP in the restrict IP settings.



<input type="checkbox"/>	From	To
<input checked="" type="checkbox"/>	10.20.1.10	10.20.1.30
<input type="checkbox"/>		

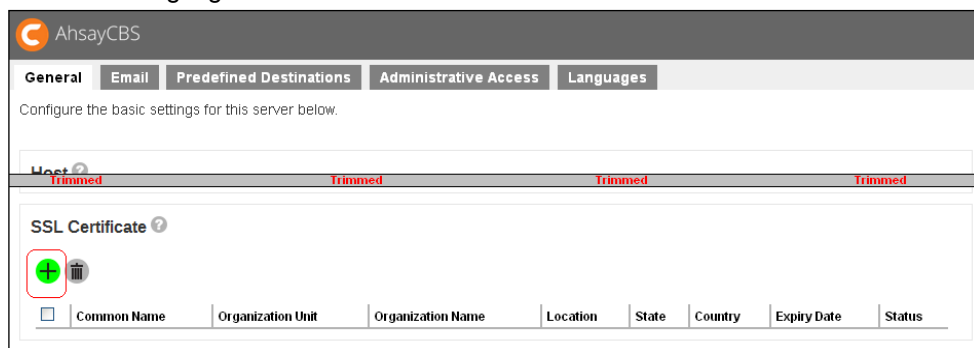
Installation a trusted SSL certificate

Default installation of AhsayCBS 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, you need to generate a CSR (Certificate Signing Request) and submit the CSR to your CA. Please perform the following in your AhsayCBS.

SSL Certificate Installation Service

Let our professional customer service team help you with the SSL certificate purchase and installation. Click [here](#) to visit the Ahsay Shopping Centre for subscription.

1. Navigate to **System Settings -> Basic -> General -> SSL certificate**, click on the **+** button as highlighted below.



2. Enter the CSR details, then click the Next button to proceed.

The screenshot shows the 'SSL Certificate' form. It has a title 'SSL Certificate' and a 'General Information' section with a 'Name' field. Below this, there are two radio buttons: 'Generate Csr' (selected) and 'Import SSL Certificate and Private Key'. The 'Generate Csr' section contains several text input fields: 'Common Name', 'Organizational Unit', 'Organizational Name', 'Location', 'State', and 'Country'.

3. Generate a CSR to apply the SSL certificate from your trusted CA.

If the ssl and ca certificate are not ready yet, please click "ok" button. At this time, the record will be imported once the certificates are ready.

General Information

Name
fsd

CSR ?

```
-----BEGIN CERTIFICATE REQUEST-----
MIICmTCCAYECAQAwVDEMMMAoGA1UEAwDZnNkMQwwCgYDVQQQ
LDANnZGYxDDAKBgNV
BAoMA2ZzZDENMAAsGA1UEBwwEZmZkczEMMAoGA1UECAwDZnNk
MQswCQYDVQQGEwJD
TjCCASlwDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEBAlmfKz5
KAX+Acx2OEosr
JB+w42STWwUUDcAmARW0aYeRqfQ0b7bnHhRcjphYcwCaOiUrm
OCIPGy3N1KISi
MGvhWVGZ99OipEC8DEtb9ISy276HPioZA4pKgopvPyp5Hn3JQnzg+
G8Bg957f7pz
-----
```

4. You will see a **Pending** status in the SSL Certificate page.

AhsayCBS

General | Email | Predefined Destinations | Administrative Access | Languages

Configure the basic settings for this server below.

Host ?
Trimmed Trimmed Trimmed Trimmed

SSL Certificate ?

+ -

<input type="checkbox"/>	Common Name	Organization Unit	Organization Name	Location	State	Country	Expiry Date	Status
<input type="checkbox"/>	www.mybackup.com	IT Department	IT Department	Windsor	London	GB	--	Pending

Save X ?

5. When the SSL certificate is ready, click into the certificate entry and import the SSL certificate and CA certificate.

SSL Certificate ?

Upload

CA Certificate ?

Upload

Subject	Issuer	Valid From	Valid Until

← ✓ X ?

6. You will be able to see the status of the certificate as **Ready** and a valid **Expiry Date**.

The screenshot shows the 'General' tab of the AhsayCBS configuration interface. The 'Host' section is at the top, followed by the 'SSL Certificate' section. The SSL Certificate table has the following data:

Common Name	Organization Unit	Organization Name	Location	State	Country	Expiry Date	Status
www.mybackup.com	IT Department	IT Department	Windsor	London	GB	2016-12-05	Ready

The 'Expiry Date' and 'Status' columns are highlighted with a red box.

7. To apply the SSL certificate to your connector, click into the HTTPS entry.

The screenshot shows the 'Connectors' section of the AhsayCBS configuration interface. The 'Connectors' table has the following data:

IP	Port	Protocol	Max Connection	Connection Timeout	Max Keep Alive Request	SSL Certificate
10.7.0.122	80	HTTP	2000	20000	1000	--
10.7.0.122	443	HTTPS	2000	20000	1000	--


The HTTPS entry is highlighted with a red box. Below the connectors is the 'SSL Certificate' section, which shows the same certificate details as in the previous screenshot.

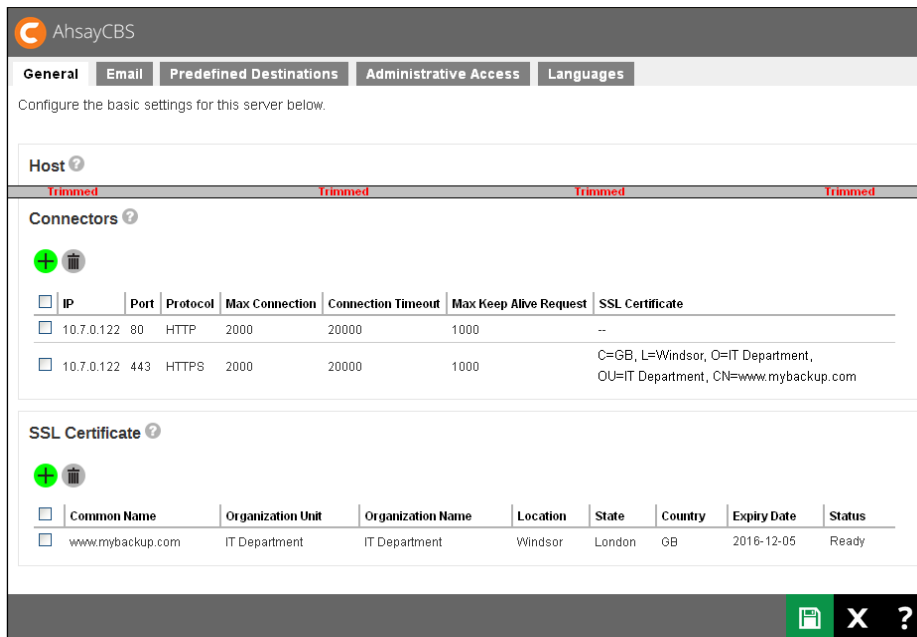
8. Add the **SSL certificate** to this connector as shown below.

The screenshot shows the 'Add New Web Server Setting' dialog box. The 'Web Server' section has the IP address '10.7.0.122' and the port '1000'. The 'SSL Certificate' section has a dropdown menu with the following options:

- Default SSL Certificate
- Default SSL Certificate
- C=GB, L=Windsor, O=IT Department, OU=IT Department, CN=www.mybackup.com

The third option is selected and highlighted with a blue box.

9. Click  at the bottom right corner to save the settings.



The screenshot shows the AhsayCBS configuration interface. The 'General' tab is selected. The 'Host' section has a text input field with the value 'Trimmed'. The 'Connectors' section has a table with two rows of connector settings. The 'SSL Certificate' section has a table with one row of certificate details. At the bottom right, there is a green 'Save' button, a red 'X' button, and a help icon.

IP	Port	Protocol	Max Connection	Connection Timeout	Max Keep Alive Request	SSL Certificate
10.7.0.122	80	HTTP	2000	20000	1000	--
10.7.0.122	443	HTTPS	2000	20000	1000	C=GB, L=Windsor, O=IT Department, OU=IT Department, CN=www.mybackup.com

Common Name	Organization Unit	Organization Name	Location	State	Country	Expiry Date	Status
www.mybackup.com	IT Department	IT Department	Windsor	London	GB	2016-12-05	Ready

Renew a trusted SSL certificate

When your SSL certificate is due to expire, you can renew your SSL cert via your CA's website. Your CA may ask you to use the existing CSR that you submitted previously or submit a new CSR.

- 1. If you decided to use a new CSR, most likely the information on the old CSR is not up-to-date. Most CA will not consider this as a renew process and you need to start from the beginning of a certificate process described in previous section.
- 2. If you purchase a renew SSL certificate with the existing CSR, wait for your CA to sign the renew SSL certificate.

Note

The renewal process may be different for different CA. You need to follow your CA's instruction on the renewal process.

The import step of a renewed SSL certificate is similar to the installation of a SSL certificate. Please perform the following in your AhsayCBS.

1. Enter **System Settings -> Basic -> General -> SSL certificate.**

AhsayCBS

General | Email | Predefined Destinations | Administrative Access | Languages

Configure the basic settings for this server below.

Host ?
Trimmed Trimmed Trimmed Trimmed

SSL Certificate ?

+ -

Common Name	Organization Unit	Organization Name	Location	State	Country	Expiry Date	Status
www.mybackup.com	IT Department	IT Department	Windsor	London	GB	2016-12-05	Ready

2. Click into the certificate entry.
3. Import the SSL certificate and CA certificate.

Csr ?

-----BEGIN CERTIFICATE REQUEST-----
MIICwDCAAgCAQAwEzEMBgGATUE...
-----END CERTIFICATE REQUEST-----

SSL Certificate ?
Upload

CA Certificate ?
Upload

Subject	Issuer	Valid From	Valid Until
---------	--------	------------	-------------

✓ X ?

4. You will see the date of “Expiry Date” is extended.

AhsayCBS

General | Email | Predefined Destinations | Administrative Access | Languages

Configure the basic settings for this server below.

Host ?
Trimmed Trimmed Trimmed Trimmed

SSL Certificate ?

+ -

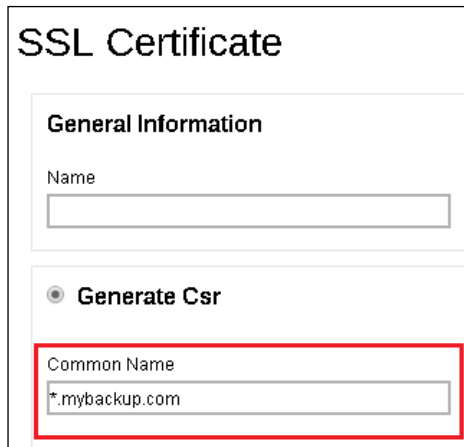
Common Name	Organization Unit	Organization Name	Location	State	Country	Expiry Date	Status
www.mybackup.com	IT Department	IT Department	Windsor	London	GB	2018-12-05	Ready

Save X ?

Wild card SSL certificate with redirector setup

In the Redirector with a number of Backup Servers setup scenario, you need to apply a wild card certificate for all your AhsayCBS servers. The application of the wild card certificate is the same as a normal certificate except the common name needs to enter *.backup.com instead. To apply a wild card certificate for all your AhsayCBS servers, please perform the following:

1. In the AhsayCBS with the Redirector role, enter **System Settings -> Basic -> General -> SSL certificate**.
2. Generate a CSR with the common name set to, for example ***.mybackup.com**, and apply the SSL certificate from your trusted CA.



SSL Certificate

General Information

Name

☒ **Generate Csr**

Common Name

3. When the SSL certificate is ready, import the SSL certificate.
4. Copy the SSL certificate, private key and the CA certificate file from your AhsayCBS_HOME/conf/cert folder and transfer to your AhsayCBS with Backup Server role. They are named similar as the following:

E.g.:

1449049185371.crt
1449049185371.key
1449049185371.ca

5. Import these 3 certificate files in one of your AhsayCBS (Backup Server role) in the **System Settings -> Basic -> General -> SSL certificate**, click on the **+** button.

6. Select the **Import SSL Certificate and Private Key** radio button. Select the **Type** and then import the SSL Private Key, SSL certificate and the CA certificate.

SSL Certificate

General Information
Name

☐ **Generate Csr**

☒ **Import SSL Certificate and Private Key**
Type
PEM
SSL Private Key
 No file chosen
SSL Certificate
 No file chosen

7. To apply the SSL certificate to your connector, click into the HTTPS entry.

AhsayCBS
General | **Email** | **Predefined Destinations** | **Administrative Access** | **Languages**
Configure the basic settings for this server below.

Host
Trimmed Trimmed Trimmed Trimmed

Connectors

	IP	Port	Protocol	Max Connection	Connection Timeout	Max Keep Alive Request	SSL Certificate
<input type="checkbox"/>	10.7.0.122	80	HTTP	2000	20000	1000	--
<input type="checkbox"/>	10.7.0.122	443	HTTPS	2000	20000	1000	--

SSL Certificate

	Common Name	Organization Unit	Organization Name	Location	State	Country	Expiry Date	Status
<input type="checkbox"/>	*.mybackup.com	IT Department	IT Department	Windsor	London	GB	2016-12-05	Ready

8. Add the SSL certificate to this connector.

Add New Web Server Setting

Add a new set of web server settings below for your users to access this server.


Web Server

IP
10.7.0.122

Port
1000

SSL Certificate
Default SSL Certificate
Default SSL Certificate
C=GB, L=Windsor, O=IT Department, OU=IT Department, CN=*.mybackup.com

✓ X ?

9. Click  at the bottom right corner to save the settings.

AhsayCBS

General | Email | Predefined Destinations | Administrative Access | Languages

Configure the basic settings for this server below.

Host

Trimmed Trimmed Trimmed Trimmed

Connectors

+ -

IP	Port	Protocol	Max Connection	Connection Timeout	Max Keep Alive Request	SSL Certificate
10.7.0.122	80	HTTP	2000	20000	1000	--
10.7.0.122	443	HTTPS	2000	20000	1000	C=GB, L=Windsor, O=IT Department, OU=IT Department, CN=*.mybackup.com

SSL Certificate

+ -

Common Name	Organization Unit	Organization Name	Location	State	Country	Expiry Date	Status
*.mybackup.com	IT Department	IT Department	Windsor	London	GB	2016-12-05	Ready

Save X ?

Email

The following shows the **Email** tab under **System Settings > Basic**. This is used for defining the various email settings that AhsayCBS uses to generate email reports to backup system administrator and backup users.

https://10.23.6...onfiguration.do

https://10.23.6.69:60443/cbs/system/ShowConfiguration.do#

AhsayCBS

General Email Predefined Destinations Administrative Access Languages

Configure the settings of the email server(s) that will be used for sending emails.

SMTP Server

+ -

<input type="checkbox"/>	Host Name	Port	Require SMTP Authentication	Login Name	Use secure protocol	Sender Name	Sender Email	Sign all outgoing emails	Owner
<input type="checkbox"/>	smtp.gmail.com	587	Yes	ahsaycsv2007@gmail.com	Yes	BACKUP SERVICE ADMIN	ahsaycsv2007@gmail.com	No	

Administrator Contact

+ -

<input type="checkbox"/>	Name	Email	Encrypt Email	Owner
<input type="checkbox"/>	admin	ahsaycsv2007@gmail.com	No	

Report Settings

☒ Email me Low Disk Space Reminder / Alert Report

Send Low Disk Space Reminder when total used space is over %

Send Low Disk Space Alert Report when total used space is over %

☒ Email me Low Destination Space Reminder / Alert Report

Send Low Destination Space Reminder when total destination space is over %

Send Low Destination Alert Report when total destination space is over %

There are several groups of settings under the **Email** tab, and they are listed below.

Section	Description
SMTP Server	<p>Multiple SMTP servers can be setup for AhsayCBS. If the first SMTP server is unavailable, the next SMTP server will be used. To avoid your report emails being filtered by the SMTP server or mail client, you need to enter a valid report sender in the email settings.</p> <p>Note: If you don't have an SMTP server, you can consider using a free SMTP such as Gmail.</p>
Administrator Contact	<p>This entry defines the administrative contact of AhsayCBS. AhsayCBS will send usage, error and all critical system alerts to all email addresses defined here.</p>
Report Settings	<p>This setting allows the AhsayCBS administrator to define the threshold for email reminder / alert low disk space on AhsayCBS and backup destinations. The default settings are 80% and 90% respectively:</p> <ul style="list-style-type: none">➤ Low Disk Space Reminder / Alert Report for AhsayCBS user home and system home drives: <p>Send Low Disk Space Reminder when total used space is over 80%.</p>

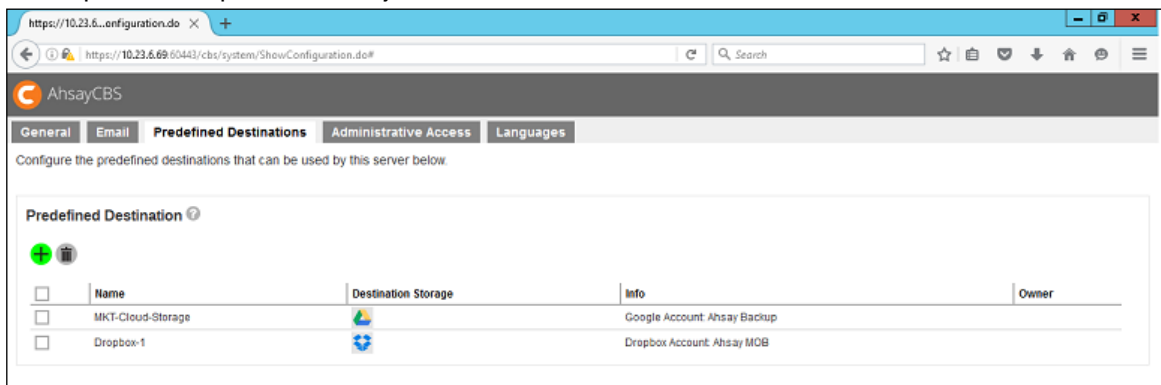
	<p>Send Low Disk Space Alert Report when total used space is over 90%.</p> <p>A Low Disk Space Reminder email is sent to the administrator 15 minutes when the disk usage has exceeded the preset threshold.</p> <p>A Low Disk Space Alert email is sent to the administrator every 15 minutes when the disk usage has exceeded the preset threshold.</p> <p>Low Destination Space Reminder / Alert Report for OneDrive and Google Drive destinations only.</p> <p>Send Low Destination Space Reminder when total destination space is over 80%</p> <p>Send Low Destination Alert Report when total destination space is over 90%</p> <p>A Low Destination Space Reminder email is sent to the administrator at 6:00 AM daily when the destination disk usage has exceeded the preset threshold.</p> <p>A Low Destination Alert email is sent to the administrator at 6:00 AM daily when the destination disk usage has exceeded the preset threshold.</p>
--	--

Predefined Destinations Tab

The following shows the **Predefined Destinations** tab under **System Settings > Basic**.

Predefined destination defines a list of local destinations, FTP or cloud storages in which the AhsayCBS server, users and sub admin can be used to store backup data. Predefined destination makes it easily to add extra cloud storage for current or new client and also makes the backup destination redundancy in cloud storage to double the stability. Predefined Destination can also be used to customize frequently used backup destination as visible optional destination choice for backup sets.

Predefined destination can also be used to replicate the AhsayCBS database and backup data to cloud destination which ensures single failure of AhsayCBS database won't influence the subsequent backup and restore jobs.



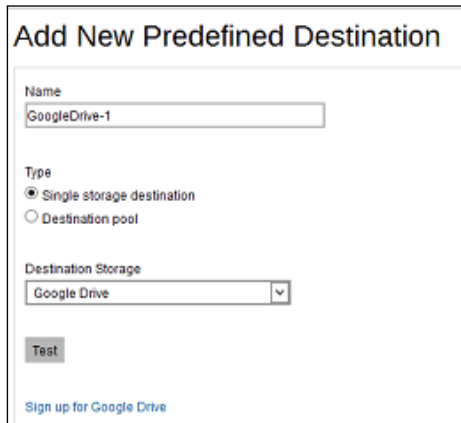
You can set predefined destination on the following destination storage:

- ▶ Local / Mapped Drive / Removable Drive
- ▶ Amazon Cloud Drive
- ▶ AWS S3 Compatible Cloud Storage
- ▶ Google Drive
- ▶ OneDrive
- ▶ Rackspace
- ▶ Dropbox
- ▶ SFTP
- ▶ AhsayCBS Receiver
- ▶ CTYun
- ▶ Amazon S3
- ▶ Google Cloud Storage
- ▶ Microsoft Azure
- ▶ OneDrive for Business
- ▶ Open Stack
- ▶ FTP
- ▶ AhsayCBS
- ▶ 阿里云

Set up predefined destination on cloud storage

AhsayCBS allows setting a backup destination on some common cloud storage, local hard disk and FTP servers. The setup method is similar on different cloud storage. In the following example, we show you how to set up a predefined destination for **Google drive**. The steps for other destination storages are similar.

1. Click the green Plus (+) button in the middle of the page to add a predefined destination. The following screen appears:



The screenshot shows a form titled "Add New Predefined Destination". It contains the following fields and options:

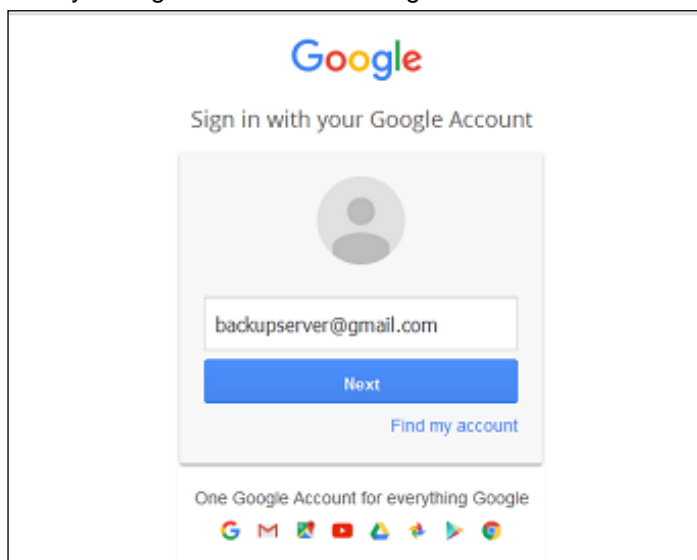
- Name:** A text input field containing "GoogleDrive-1".
- Type:** Two radio button options: "Single storage destination" (which is selected) and "Destination pool".
- Destination Storage:** A dropdown menu showing "Google Drive".
- Test:** A button.
- Sign up for Google Drive:** A link at the bottom.

2. Enter the name of the backup destination. In our example, the name is **GoogleDrive-1**.
3. Select **Single storage destination** as the type of predefined destination.

Note

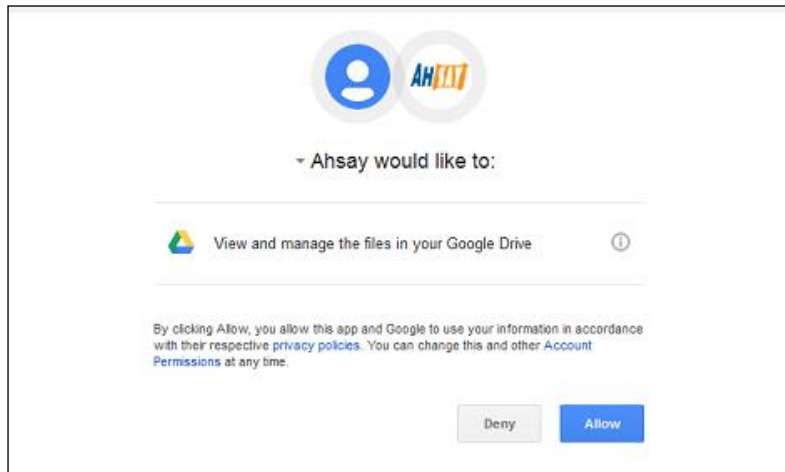
The option Destination pool is defined from a number of single storage destination.

4. Select **Google Drive** from the **Destination Storage** dropdown box.
5. If you do not have Google Drive, please click the link **Sign up for Google Drive** to create a Google account.
6. Click the green **Add (+)** button at the bottom right hand corner of the page.
7. Enter your login credential for Google Drive.

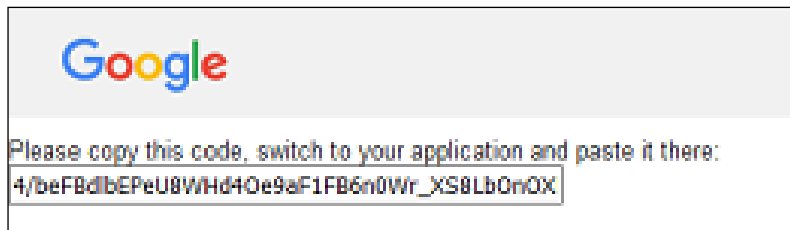


The screenshot shows the Google Account sign-in interface. It includes the Google logo, the text "Sign in with your Google Account", a profile picture placeholder, an email input field containing "backupserver@gmail.com", a blue "Next" button, and a link "Find my account". At the bottom, it says "One Google Account for everything Google" and shows icons for various Google services.

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



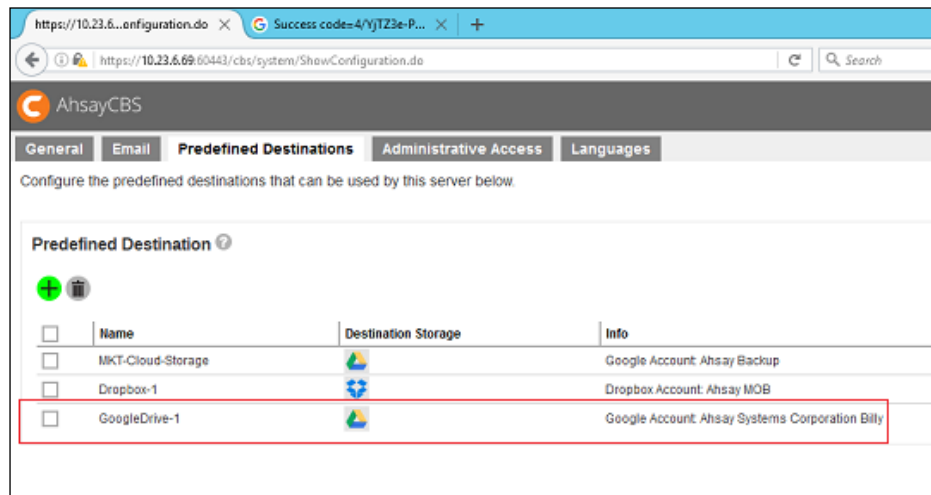
9. On the browser, a code is displayed. Copy this code, then switch to AhsayCBS to paste the code.



10. Paste the code to the **Authorization code** field on the **Add New Predefined Destination** page in AhsayCBS. Click the green **Add (+)** button at the bottom right hand corner of the page.

A screenshot of the "Add New Predefined Destination" form in AhsayCBS. The form has a title "Add New Predefined Destination" at the top. Below the title are several fields: "Name" with the value "GoogleDrive-1", "Type" with two radio buttons (selected: "Single storage destination", unselected: "Destination pool"), "Destination Storage" with a dropdown menu showing "Google Drive", and "Authorization code" with the value "4/bEFDdbEPeU8WHd4Oe9aF1FB6n0Wr_XS8LbOnOXD9IM". Below the authorization code field is a "Test" button. At the bottom of the form is a link that says "Sign up for Google Drive".

11. You can see the newly created predefined storage **GoogleDrive-1** appears under the **Predefined Destination** page.

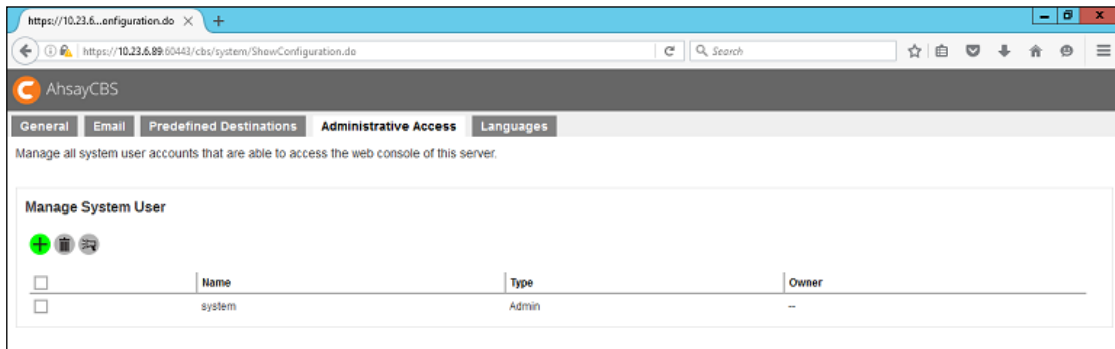


12. When you create a backup set for a user, you will be able to see the new predefined destination.

For more examples on setting up other cloud storages, refer to [Appendix E Setting up Cloud Storage](#).

Administrative Access Tab

The following shows the **Administrative Access** tab under **System Settings > Basic**. You can manage your system user accounts on this page.



On daily operation, you may need to assign your operators or administrators to work on your AhsayCBS. You may have programmers to write API for your applications with the AhsayCBS. You may also want to hire some resellers so that you can expand your business. You will need to setup different system users with different role/privileges to work on the AhsayCBS.

Add a new system user

1. Click the green Plus (+) button in the middle of the page to add a new system user. The following screen appears:

A screenshot of the 'Add new system user' form. The form has a title 'Add new system user' and a section 'Profile'. Under 'Profile', there are three text input fields: 'Name' (containing 'operator01'), 'Password' (containing '*****'), and 'Re-type Password'. Below these fields is a dropdown menu for 'Type' with options: 'Admin' (selected), 'Read-only Admin', 'API', and 'Sub Admin'. There is also a partially visible 'Generated Report' link.

2. Enter the **Name** of the system user.
3. Enter the **Password** of the system user. Enter the same password again at the **Re-type Password** field.

4. Select the system user type from the **Type** dropdown Box. There are four types of system users:

• **Admin**

The Admin role has the same privilege as the build-in **system** account. For example, you can assign this account for your administrator(s) to configure or administer the AhsayCBS for you.

• **Read-only Admin**

The Read-only Admin role shares similar accessibility as its creator with Admin role, except with read permission only.

• **API**

The API role has full access right to the system; it has the same privilege as the build-in **system** account. This account is created for external application developers who can use this for API login authentication purposes.

• **Sub Admin**

The Sub Admin role has the full access right to the users that was created under this sub admin and has the right to manage the backup and restore jobs or activities similar as the system administrator with less admin options.

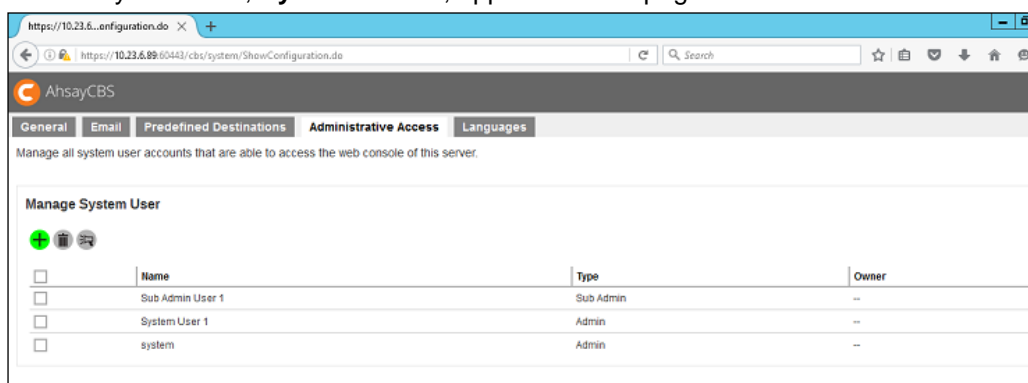
The following table provides a summary of the permissions of different system users in AhsayCBS.

Permission	Admin	Read-only Admin	API	Sub Admin
Read permission	✓	✓	✓*	✓
Write permission	✓	x	✓*	✓
Login AhsayCBS	✓	✓	x	✓
Create new system users	✓	x	✓*	✓
Profile page	✓	✓	x	✓
Backup User Settings page	✓	x	x	✓**
Rebrand Web Console page	✓	x	x	✓
Rebrand Client page	✓	x	x	✓
Export/Import profile	✓	x	x	✓

* API role has full access to the AhsayCBS which is similar as the Admin role through the API call, except login to the AhsayCBS interface.

** Sub Admin role has full access to the settings (except the Backup User Settings page) and users under this sub admin user only.

- Click the green **Add (+)** button at the bottom right hand corner of the page. The newly-created system user, **System User 1**, appears on the page.



- Click  at the bottom right corner of the page to save the changes.

Sending a broadcast message

If you want to send broadcast message to other Sub Admin or Read-only Admin, do the following:

- Select the system users to whom you need to send the broadcast message. In our example, **System User 1** is selected.



- Click the **Broadcast** icon in the middle of the page. The following appears:

Broadcast

To

Type	Name
<input checked="" type="checkbox"/>	System User 1
<input type="checkbox"/>	system

Subject

Server maintenance Notice

Message

Server will be shutdown for maintenance in 4 hours

☒ Text ☐ HTML

Attachment

Browse... No file selected.

3. Enter the **Subject** and **Message** for the broadcast message.

- You can select **Text** or **HTML** for the message body.
- If you want to include an attachment, click **Choose File** and browse to the desired location to select the file you want.

Click the **Send** button at the bottom right hand corner of the page to send the broadcast message. Click **X** to exit.

Managing System User

You can modify the setting of your system user by clicking into the system user's name. You will see 4 tabs:

Profile	Backup User Settings
Rebrand Web Console	Rebrand Clients

Each of these 4 tabs are described in detail below.

• **Profile Tab**

The profile tab is available to all Admin, Read-Only Admin, and Sub Admin users after they login.

The following screen shows the Profile tab of the user used. In our example, **System User 1**, the type of the user is **Admin**.

You can change the **Password** and **Type** of the user on this page.

The screenshot shows a web interface for managing a system user. On the left, a sidebar contains four tabs: 'Profile' (which is highlighted), 'Backup User Settings', 'Rebrand Web Console', and 'Rebrand Clients'. The main area displays the 'Profile' settings for 'System User 1'. It includes a 'Name' field with the value 'System User 1', a 'Password' field (masked with dots), a 'Re-type Password' field, and a 'Type' dropdown menu currently set to 'Admin'. At the bottom, there is a checkbox labeled 'Email me Consolidated Report' which is checked, followed by a blue 'Report' button.

For **Sub Admin** users, the Profile page contains more settings.

Profile
Backup User Settings
Rebrand Web Console
Rebrand Clients

Profile

Name
sub1

Password
.....

Re-type Password

Type
Sub Admin

☒ Email me Consolidated Report

☒ Show the rebranding pages

Delegate setting and user management to Sub Admin

☐

Host Name
sub.admin

The Sub Admin profile page is different from the Admin profile page in the following 3 ways:

- Another Sub Admin is possible to be delegated for a Sub Admin user through the interface.
- The Host Name for the Sub Admin user can be modified.

Note

From v7.15.0.0 onwards AhsayCBS Sub Admin users (resellers) can share the same hostname as the system admin user. In our example, the host name for system admin is "sub.admin", and so is for the Sub Admin users "sub1" and "sub2".

AhsayCBS

General
Email
Predefined Destinations
Administrative Access
Languages

Configure the basic settings for this server below.

Host

Host Name
sub.admin

System Home

System home directory
C:\Program Files\AhsayCBS\system

Connectors

☐ ☐

	IP	Port	Protocol	Max Connection	Connection Timeout
<input type="checkbox"/>	0.0.0.0	80	HTTP	2000	120000
<input type="checkbox"/>	0.0.0.0	443	HTTPS	2000	120000

Profile
Backup User Settings
Rebrand Web Console
Rebrand Clients

Profile

Name
sub1

Password
.....

Re-type Password
.....

Type
Sub Admin

☒ Email me Consolidated Report

☒ Show the rebranding pages

Delegate setting and user management to Sub Admin
☒

Host Name
sub.admin

Profile
Backup User Settings
Rebrand Web Console
Rebrand Clients

Profile

Name
sub2

Password
.....

Re-type Password
.....

Type
Sub Admin

☒ Email me Consolidated Report

☒ Show the rebranding pages

Delegate setting and user management to Sub Admin
☒

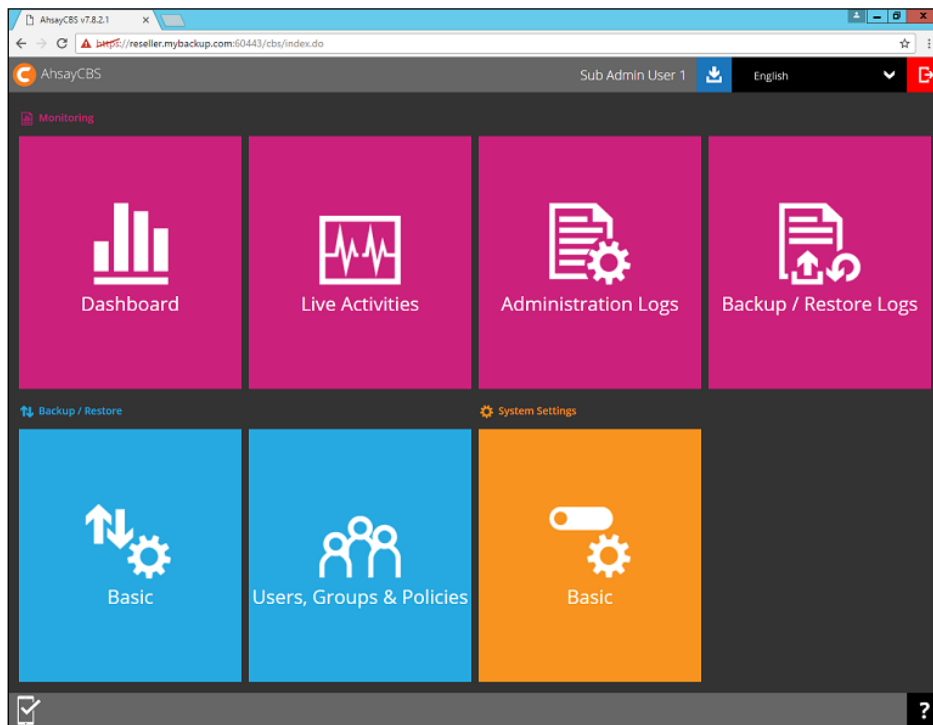
Host Name
sub.admin

Note

The hostname setup for a Sub Admin user is important, as AhsayCBS uses connecting hostname to determine which branding should be applied on the interface.

- A different connector can be applied for the Sub Admin users.

The Sub Admin user has fewer privileges as the full Admin user. In our example, the Sub Admin User 1 account shows a subset of the functions available when the Sub Admin user logs onto AhsayCBS and even within each subset a sub admin user has only access to certain functions:



Available functions for Sub Admin users.

Monitoring	
Dashboard	<ul style="list-style-type: none"> ➤ To Dos ➤ CPU ➤ Memory ➤ Storage
Live Activities	<ul style="list-style-type: none"> ➤ Backup Status ➤ Restore Status
Administration Logs	<ul style="list-style-type: none"> ➤ Audit Trails
Backup / Restore Logs	<ul style="list-style-type: none"> ➤ Backup Jobs ➤ Restored Jobs ➤ Backup Errors ➤ Backup Set Log ➤ Activities Log
Backup / Restore	
Basic	<ul style="list-style-type: none"> ➤ Free Trial Options

Users, Groups, & Policies	<ul style="list-style-type: none"> ➤ Backup User ➤ User Group ➤ Policy Group
System Settings	
Basic	<ul style="list-style-type: none"> ➤ Email ➤ Predefined Destinations ➤ Administrative Access

Backup User Settings Tab

The Backup User Settings tab is available to admin and sub admin users after they login, although for sub admin user they have read-only access. The administrator can assign the number of AhsayOBM/AhsayACB CALs and add-on modules to each sub admin user.

The following screen shows the Backup User Settings tab of the user used in our example, **Sub Admin User 1**, the type of the user is **Sub Admin**.

The screenshot shows the 'Backup User Settings' tab for 'Sub Admin User 1'. The left sidebar contains 'Profile', 'Backup User Settings' (selected), 'Rebrand Web Console', and 'Rebrand Clients'. The main area is titled 'Bandwidth Control' and contains the instruction 'Limit the transfer rate when performing backup and restore tasks'. There are two checkboxes: 'Max transfer rate for backup' and 'Max transfer rate for restore'. Both are currently unchecked. Each checkbox has a text input field set to '100' and a dropdown menu set to 'Kbit/s'.

Rebrand Web Console Tab

The Rebrand Web Console tab is available to admin and sub admin users after they login. Both admin and sub admin user can use this feature to rebrand the images on the AhsayCBS web console when accessed by the sub admins hostname.

The following screen shows the Rebrand Web Console tab of the user used in our example, **Sub Admin User 1**, the type of the user is **Sub Admin**.

The screenshot shows the 'Rebrand Web Console' tab for 'Sub Admin User 1'. The left sidebar contains 'Profile', 'Backup User Settings', 'Rebrand Web Console' (selected), and 'Rebrand Clients'. The main area has a top navigation bar with 'User Interface' (selected), 'Connector', 'Predefined Destinations', and 'Report'. Below this is another bar with 'Custom Properties', 'Custom Files', 'Digital Signature', and 'Build Installers'. The 'User Interface' section contains several form fields: 'Title', 'Product Name', 'Download link for iOS app' (with a text input containing a URL), 'Download link for Android app' (with a text input containing a URL), 'User Interface logo' (with a file input showing 'ico_40_cbs_logo.png - 200 x 72 px'), 'Report logo' (with a file input showing 'default.large.gif - 129 x 40 px'), and 'AhsayCBS logo' (with a file input showing 'ico_24_cbs.png - 24 x 24 px'). Each logo input has a 'Browse...' button and a 'No file selected.' message. At the bottom right, there is a toolbar with icons for zoom, pan, save, close, and help.

Rebrand Clients Tab

The Rebrand Clients tab is available to admin and sub admin users after they login.

The following screen shows the Rebrand Clients tab of the user used in our example, **Sub Admin User 1**, the type of the user is **Sub Admin**.

Profile

Backup User Settings

Rebrand Web Console

Rebrand Clients

Custom Properties

Application Settings - OBM

Application Settings - ACB

Custom Files - OBM

Custom Files - ACB

Digital Signature

Build Installers

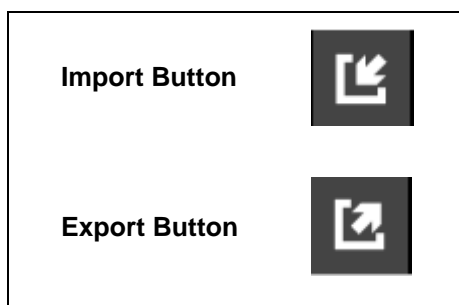
Custom Properties

Key	English	Catalan	Danish
%THIS_YEAR%	2017	2017	2017
%COMPANY_NAME_FULL%	Ahsay Systems Corporation	Ahsay Systems Corporation	Ahsay Systems Corporation
%COMPANY_NAME_SHORT%	Ahsay	Ahsay	Ahsay
%COMPANY_NAME_SYSTEM%	Ahsay Systems Corporation		
%COMPANY_URL%	www.ahsay.com	www.ahsay.com	www.ahsay.com
%COMPANY_COPYRIGHT%	1999-%THIS_YEAR% (C) % COMPANY_NAME_SYSTEM% All rights reserved.	1999-%THIS_YEAR% (C) % COMPANY_NAME_SYSTEM% All rights reserved.	1999-%THIS_YEAR% (C) % COMPANY_NAME_SYSTEM% All rights reserved.
%SUPPORT_EMAIL%	support-kb@ahsay.com	support-kb@ahsay.com	support-kb@ahsay.com
%SUPPORT_URL%	http://kb.ahsay.com	http://kb.ahsay.com	http://kb.ahsay.com
%SUPPORT_TEL%			
%SUPPORT_TEAM%	Ahsay Support Team	Ahsay Support Team	Ahsay Support Team
%UPDATES_URL%	http://forum.ahsay.com/viewforum.php? f=1	http://forum.ahsay.com/viewforum.php? f=1	http://forum.ahsay.com/viewforum f=1
%OBS_FULL_NAME%	Ahsay Offsite Backup Server	Ahsay Offsite Backup Server	Ahsay Offsite Backup Server
%OBS_FULL_NAME_SYSTEM%	Ahsay Offsite Backup Server		
%OBS_SHORT_NAME%	AhsayOBS	AhsayOBS	AhsayOBS
%OBS_SHORT_NAME_SYSTEM%	AhsayOBS		
%RPS_FULL_NAME%	Ahsay Replication Server	Ahsay Replication Server	Ahsay Replication Server
%RPS_FULL_NAME_SYSTEM%	Ahsay Replication Server		
%RPS_SHORT_NAME%	AhsayRPS	AhsayRPS	AhsayRPS
%RPS_SHORT_NAME_SYSTEM%	AhsayRPS		

Export/Import System Users

The export function can export the branded images, and branded properties that is set in the **Rebrand Web Console** and **Rebrand Clients** into a JSON format file. If you need to apply the branding to other sub admin users, you may import the branded JSON file back to the user.

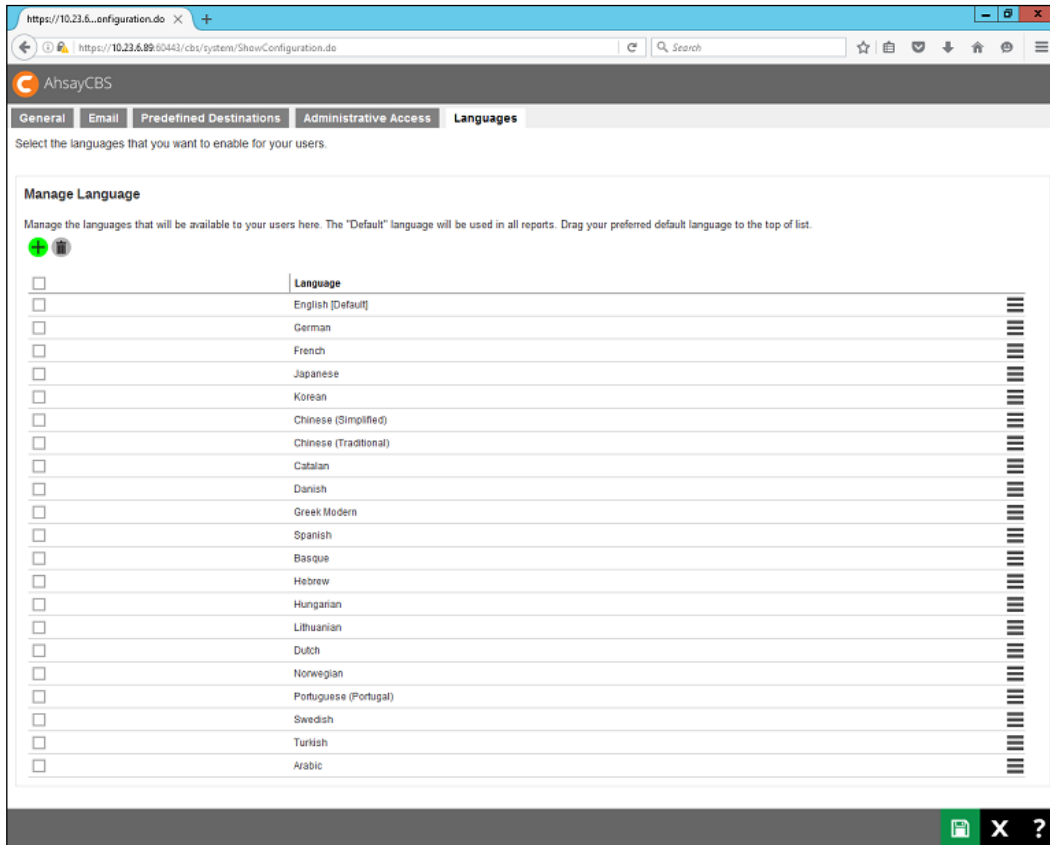
The **Import** and **Export** buttons are available to Admin and Sub Admin users only. They are found at the bottom right corner of the screen.



Languages

The following shows the **Languages** tab under **System Settings > Basic**. You can select the language(s) available to your users.

To change the default language settings for the AhsayCBS web console, simply drag your preferred default language to the top of the list.



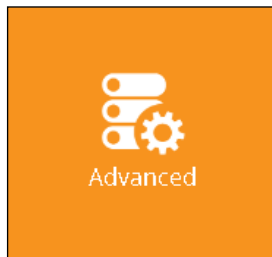
To select the language you want to make available to your users, simply click check the box next to that language.

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 | ▶ Arabic |
| ▶ Italian | ▶ Portuguese (Brazil) | ▶ Slovenian |
| ▶ Polish | ▶ Finnish | ▶ Czech |

Advanced Backup Server Configuration

To manage your AhsayCBS advanced backup server configurations, simply click the **Advanced** icon under **System Settings** from your AhsayCBS environment.



You can perform the following advanced configurations on your Backup Server:

- Restore data that has been automatically saved to Ahsay License Server.
- Configure settings for proxy connection
- Publish system and error messages to third party monitoring tools
- Retrieve system files for troubleshooting
- Configure run time options such as Java heap size, thread stack, etc.

There are 5 tabs under the **Advanced** system settings section, each of which is described below.

Auto Save

The following shows the **Auto Save** tab under **System Settings > Advanced**. When this feature is enabled, the system will automatically save all the settings in this server daily at 6:00AM to the Ahsay License Server, a maximum of 30 snapshots will be created and saved, with no size limit as long as the disk space can accommodate. So that you can restore those settings in the future when needed.

Refer to the KB article [FAQ: How to recover my users.xml file from a previous backup on AhsayCBS v7.9.0.0 or above? \(5198\)](#) for further details on this feature.



The following system configuration files that will be saved on the cloud daily by the auto save system job.

Server Configuration	
Description	Path
Connector setting file	/conf/server.xml
CBS option files	/conf/afc.opt /conf/cbs.opt
Runtime setting file	/conf/cbssvc.ini
Default certificate files	/conf/ca.crt /conf/ssl.crt /conf/ssl.key
CBS setting files	/conf/cbs.json
Redirector configuration files	/conf/lfsConfig.xml
OBS Configuration	
Description	Path
Backup Server setting files	/conf/obs.json
License files	/conf/lic.json /conf/license.xml
CBS/OBS option files	/conf/cbs.opt
Autoupdate index	/conf/autoUpdate.bdb
Replication configuration files	/conf/rpsSend.xml
RPS Configuration	
Description	Path
Replication configuration files	/conf/rps.xml /conf/rpsRecv.xml /conf/rps-recv.json
RDR Configuration	
Description	Path
Redirector configuration files	/conf/rdr.xml /conf/rdr.json
License files	/conf/rdr-lic.json /conf/rdr-license.xml
OBS User Profile	
Description	Path
Users' profile	/conf/users.xml
Others	
Description	Path
Branding directory	/conf/Branding/*.*
User group definition	/system/obs/policies/userGroup.xml
Policy group definition	/system/obs/policies/policyList.xml

Please note that there are no options to restore the **Others** category, however it will be restored automatically every time when you need to restore the auto save files.

Date

▼

(MM/DD/YYYY)

☐

Server configuration (server.xml)

☐

Backup Server Configuration

☐

Replication Module Configuration

☐

Redirector Configuration

☐

Backup Server User Profile

Proxy

The following shows the **Proxy** tab under **System Settings > Advanced**. It is used for defining whether AhsayCBS 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.

AhsayCBS

Auto Save

Proxy

Logging

File Explorer

Runtime Options

If this server requires a proxy connection, configure the related settings below.

Proxy Server

Type

HTTP

Proxy Host

Port

Proxy Username

(optional)

Proxy Password

(optional)

Test

Exclusion

☐

Enter the Hostname / IP address to be excluded

If you need to exclude some hostnames and IP address for proxy connection, you can add those excluded hostname and IP address at the bottom of the page.

Note

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

www.ahsay.com

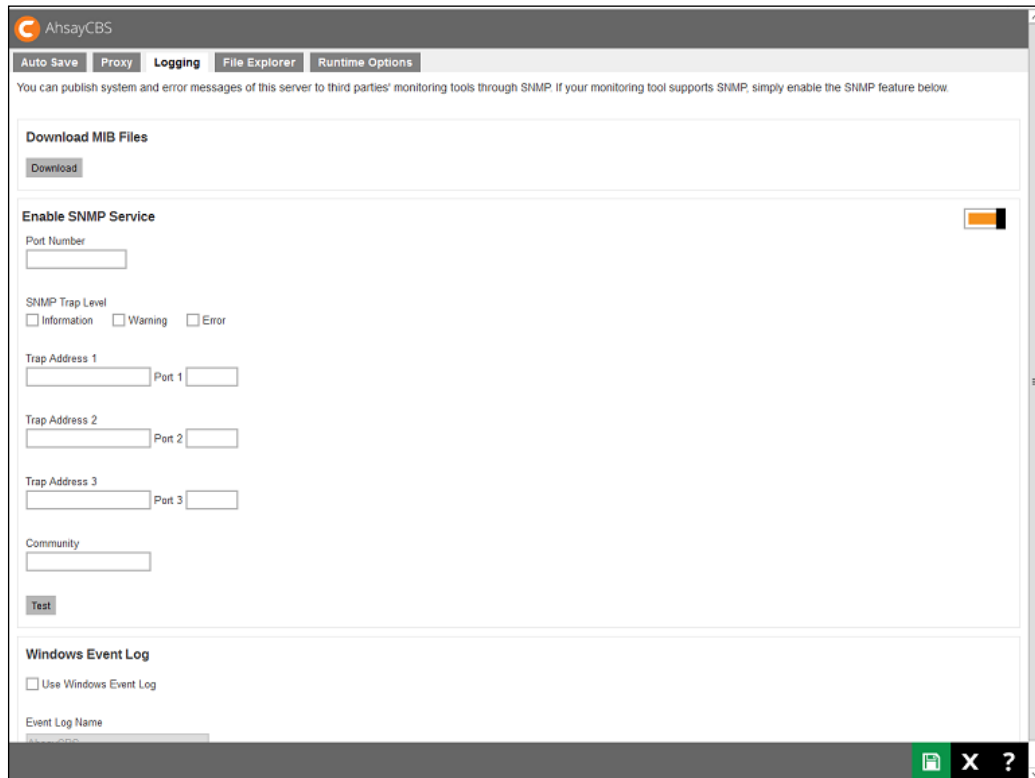
59

Logging

The following shows the **Logging** tab under **System Settings > Advanced**. There are two types of third party monitoring support, SNMP and Windows Event Log.

• SNMP

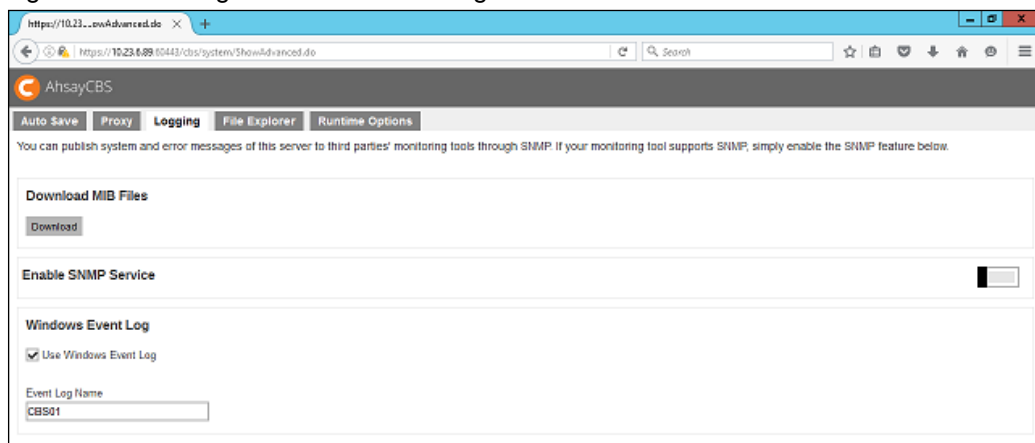
For the SNMP, you can download the MIB definition file and import to your SNMP application by clicking the **Download** button under **Download MIB Files**.



The screenshot shows the AhsayCBS web interface with the 'Logging' tab selected. The interface includes a navigation bar with 'Auto Save', 'Proxy', 'Logging', 'File Explorer', and 'Runtime Options'. Below the navigation bar, there is a section for 'Download MIB Files' with a 'Download' button. The 'Enable SNMP Service' section features a toggle switch, a 'Port Number' input field, 'SNMP Trap Level' options (Information, Warning, Error), and three 'Trap Address' input fields with corresponding 'Port' input fields. A 'Community' input field and a 'Test' button are also present. The 'Windows Event Log' section has a checkbox for 'Use Windows Event Log' and an 'Event Log Name' input field.

• Windows Event Log

This feature is supported for AhsayCBS installations on Microsoft Windows platforms where the **Windows Event Log** service is enabled. All AhsayCBS system log information such as errors, warnings, and information message types will also be written to the Windows event logs. The event log name is limited to eight characters.



This screenshot shows the same AhsayCBS web interface as the previous one, but with the 'Use Windows Event Log' checkbox checked. The 'Event Log Name' input field now contains the text 'CBS01'. The 'Enable SNMP Service' toggle switch is also visible in this view.

Event Viewer

File Action View Help

Event Viewer (Local)

- Custom Views
- Windows Logs
- Applications and Services Log
 - CBS01
 - Hardware Events
 - Internet Explorer
 - Microsoft
 - Windows PowerShell
 - Subscriptions

CBS01 Number of events: 33

Level	Date and Time	Source	Event ID	Task Category
Information	26/09/2016 11:00:48	CBS01	257	None
Information	26/09/2016 11:00:48	CBS01	257	None
Information	26/09/2016 11:00:47	CBS01	257	None
Information	26/09/2016 11:00:47	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:33	CBS01	257	None
Information	26/09/2016 11:00:18	CBS01	257	None
Information	26/09/2016 11:00:18	CBS01	257	None

Event 257, CBS01

General Details

[Job]HourlyJob[End] License check

Log Name: CBS01
 Source: CBS01
 Event ID: 257
 Level: Information
 User: N/A
 Date/Time: 26/09/2016 11:00:48
 Task Category: None
 Keywords: Classic
 Computer: w1212x-6-89

More Information: [Event Log Online Help](#)

Actions

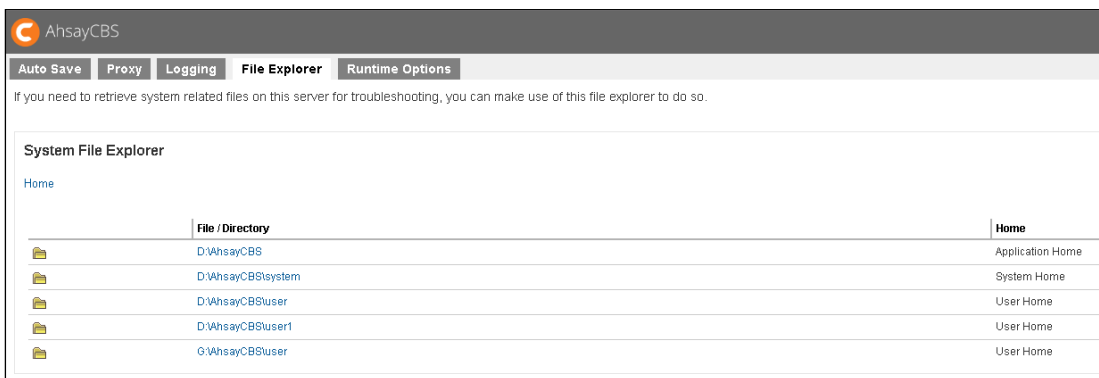
- CBS01
- Open Saved Log...
- Create Custom View...
- Import Custom View...
- Clear Log...
- Filter Current Log...
- Properties
- Find...
- Save All Events As...
- Attach a Task To this Log...
- View
- Refresh
- Help
- Event 257, CBS01
- Event Properties
- Attach Task To This Event...
- Save Selected Events...
- Copy
- Refresh
- Help

File Explorer

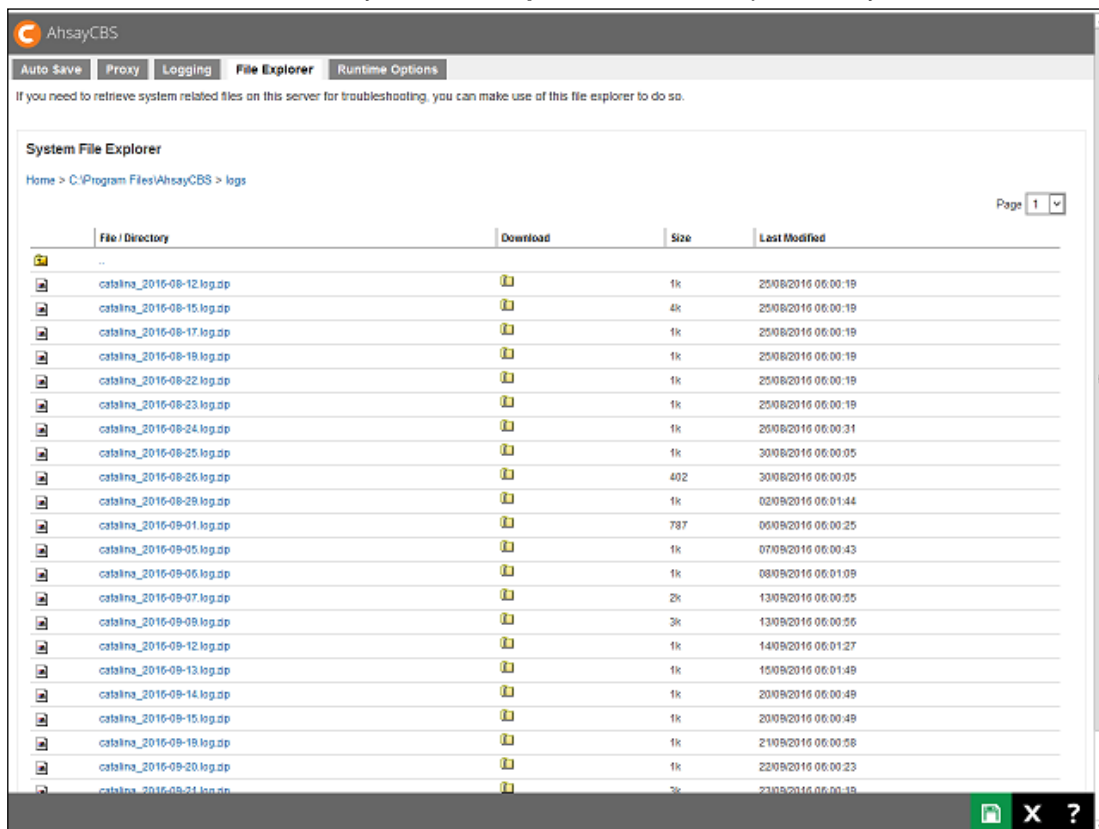
The following shows the **File Explorer** tab under **System Settings > Advanced**. If administrator or support staff needs to retrieve system related files on the AhsayCBS server for troubleshooting, they can make use of the **File Explorer** feature to download log or configuration files from the server without having to login remotely using RDP or SSH.

The **File Explorer** feature is limited to access files/folder related to AhsayCBS:

- 1 AhsayCBS Application Home.
- 2 AhsayCBS System Home.
- 3 AhsayCBS User Home(s).



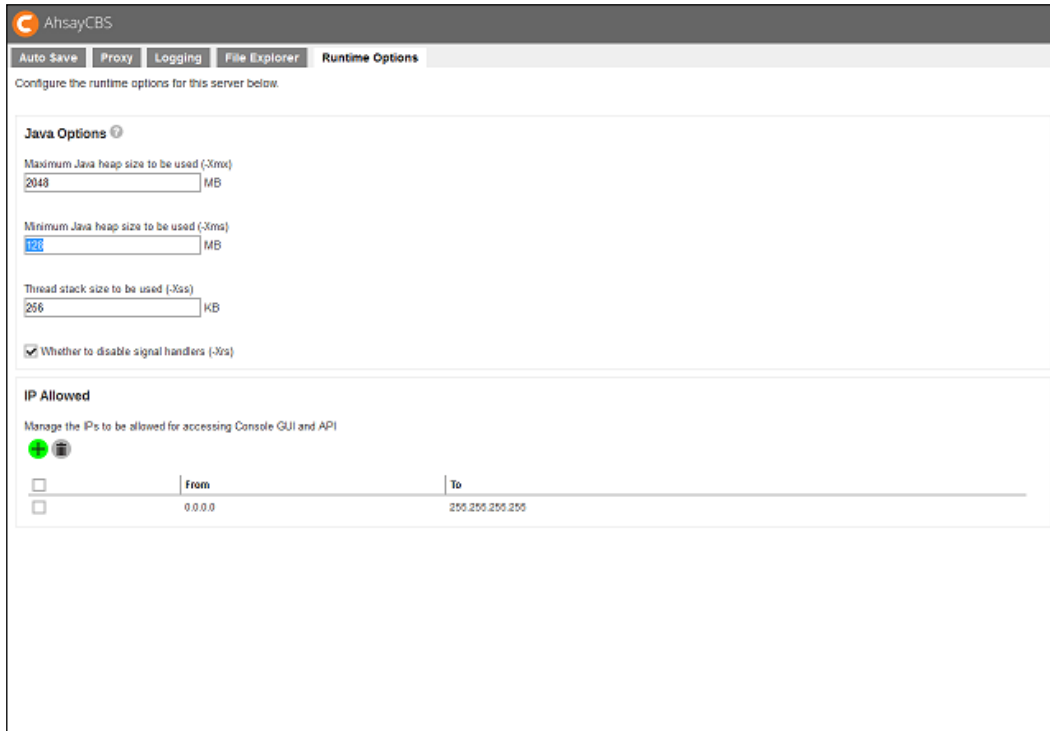
All files download via the AhsayCBS **File Explorer** tab are compressed by default.



Runtime Options Tab

The following shows the **Runtime Options** tab under **System Settings > Advanced**. It allows administrators to modify Java options such as Java heap size (maximum and minimum), thread stack size and IP allowed to access the AhsayCBS management console.

By default the maximum Java heap size is 1024MB and there are no restrictions on IP address access to AhsayCBS web console.



The screenshot shows the AhsayCBS web interface. At the top, there's a navigation bar with tabs: Auto Save, Proxy, Logging, File Explorer, and Runtime Options (which is selected). Below the tabs, a message says "Configure the runtime options for this server below." The main content area is divided into two sections. The first section, "Java Options", contains four input fields: "Maximum Java heap size to be used (-Xmx)" with a value of 2048 MB, "Minimum Java heap size to be used (-Xms)" with a value of 128 MB, "Thread stack size to be used (-Xss)" with a value of 256 KB, and a checkbox labeled "Whether to disable signal handlers (-Xss)" which is checked. The second section, "IP Allowed", has a sub-header "Manage the IP's to be allowed for accessing Console GUI and API". It features a green plus icon and a trash icon. Below these are two input fields for IP ranges, each with a "From" and "To" label. The first range is empty, and the second range shows "0.0.0.0" and "255.255.255.255".

Important

When editing the maximum heap size for AhsayCBS, ensure that there is sufficient memory reserved for the operating system.

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

For changes in Java heap size setting the AhsayCBS service needs to be restarted before it becomes effective.

6 Managing Backup/Restore

Backup / Restore Basic Configuration

To manage your AhsayCBS backup/restore basic configurations, simply click the **Basic** icon under **Backup / Restore** from your AhsayCBS environment.



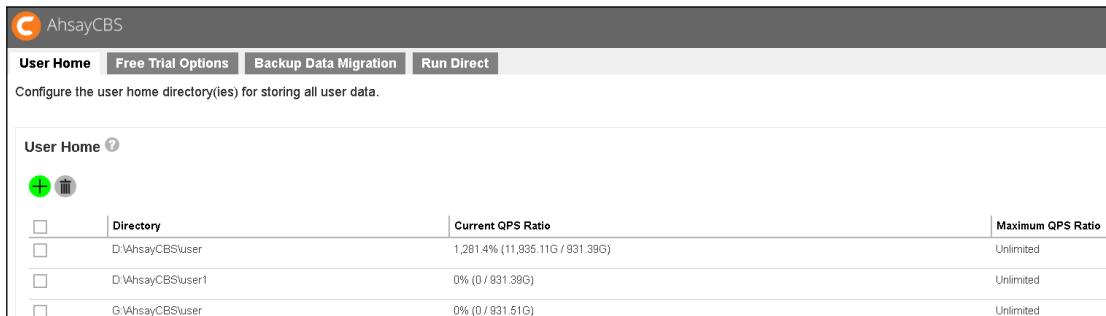
You can perform the following configurations for Backup/Restore:

- Configure user home directories.
- Configure free trial settings.
- Configure backup data migration settings.
- Define maximum number of concurrent VMs permitted to be started using Run Direct on AhsayCBS.

There are four tabs under basic backup/restore configurations, each of which is described below.

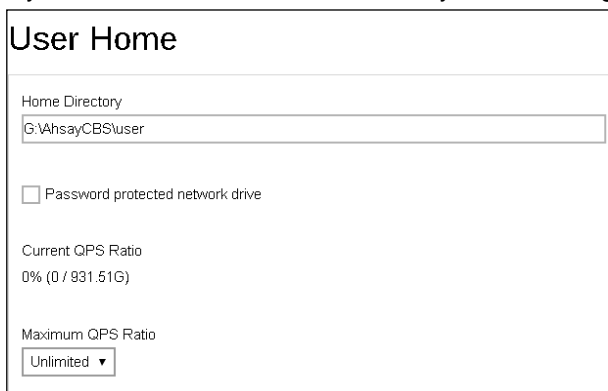
User Home

The following shows the **User Home** tab under **Backup / Restore > Basic**. It is used for configuring the user home directories for storing all the user data.



<input type="checkbox"/>	Directory	Current QPS Ratio	Maximum QPS Ratio
<input type="checkbox"/>	D:\AhsayCBS\user	1,281.4% (11,935.11G / 931.39G)	Unlimited
<input type="checkbox"/>	D:\AhsayCBS\user1	0% (0 / 931.39G)	Unlimited
<input type="checkbox"/>	G:\AhsayCBS\user	0% (0 / 931.51G)	Unlimited

If you click on the user home directory, the following appears:



User Home

Home Directory
G:\AhsayCBS\user

☐ Password protected network drive


Current QPS Ratio
0% (0 / 931.51G)

Maximum QPS Ratio
Unlimited ▼

Enter the **Home Directory** path and check the box next to **Password protected network drive** if your user home drive is on a network drive.

QPS Ratio (Quota - Partition Size Ratio) is the ratio (in percentage) of the sum of all user quotas within a user home divided by the total size of the partition of the user home. You can see the Current QPS Ratio displayed in the form of a percentage. You can select the Maximum QPS Ratio from the dropdown list.

If the QPS ratio of a user home exceeds the Maximum QPS ratio after adding a user, the user will be added to the next available user home. **Unlimited** means that the QPS ratio is not checked and new users can be added to that user home. **Not Used** means that new users are never added to that user home.

After you have entered the desired information, click the Check (✓) at the bottom right hand corner of the page to exit the Home Directory details page. Then click  at the user home page to save your changes.

Free Trial Options

The following shows the **Free Trial Options** tab under **Backup / Restore > Basic**. It defines various free trial settings available in AhsayCBS

The screenshot shows the AhsayCBS web interface with the 'Free Trial Options' tab selected. The page title is 'Configure the user home directory(ies) for storing all user data.' The 'Free Trial Registration' section includes a checked 'Enable Free Trial Registration' checkbox and a 'Backup Quota' dropdown set to '50 Mbytes'. The 'Add-on Modules' section contains two columns of checkboxes for various backup modules, all of which are checked. At the bottom, there are fields for 'User will be suspended after' (set to 90 days) and 'Remove User' (set to 180 days after registration).

Add-on Modules	
<input checked="" type="checkbox"/> Microsoft Exchange Server	<input checked="" type="checkbox"/> Microsoft SQL Server
<input checked="" type="checkbox"/> MySQL Database Server	<input checked="" type="checkbox"/> Oracle Database Server
<input checked="" type="checkbox"/> Lotus Domino	<input checked="" type="checkbox"/> Lotus Notes
<input checked="" type="checkbox"/> Windows System Backup	<input checked="" type="checkbox"/> Windows System State Backup
<input checked="" type="checkbox"/> VMware Guest VM 10	<input checked="" type="checkbox"/> Hyper-V Guest VM 10
<input checked="" type="checkbox"/> Microsoft Exchange Mailbox 10	
<input checked="" type="checkbox"/> NAS	<input checked="" type="checkbox"/> ShadowProtect System Backup
<input checked="" type="checkbox"/> Volume Shadow Copy	<input checked="" type="checkbox"/> Continuous Data Protection
<input checked="" type="checkbox"/> In-File Delta	<input checked="" type="checkbox"/> Mobile 10
<input checked="" type="checkbox"/> Office 365 Exchange Online Backup 10	<input checked="" type="checkbox"/> OpenDirect / Granular Restore 10

Trial users do not count towards the maximum number of users allowed within AhsayCBS under the paid software license, therefore it is possible to have an unlimited number of trial users within AhsayCBS. However, each trial user is limited to a maximum backup quota of 100GB for a period of 90 days. After expiration of the trial period, the backup quota will reset to a maximum of 500MB automatically.

Note

The Office 365 Exchange Online Backup module quota is shared between AhsayOBM and AhsayACB trial user accounts. If the Office 365 Exchange Online Backup module quota is assigned more than two mailboxes, AhsayACB trial user accounts will only use a maximum of two. This is to align with the design for paid AhsayACB user accounts.

To allow users to create a trial backup account from AhsayOBM or AhsayACB, please enable the **Enable Free Trial Registration** option at the top of the page. 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 **User will be suspended after <xx> days** option defines the number of days after which the trial users will be suspended. In our example, the period is **30** days.

The **Remove User <xx> days after registration** 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 AhsayCBS to remove trial backup users from the system automatically after backup users have registered for 60 days.

Backup Data Migration

The data migration is designed to migrate backup sets that were created in v6 backup server to v7 backup set blocks format to take advantage of the backup/restore performance enhancement delivered by the new file storage format.

In v6 backup set, all the backup files are stored as individual files in the user home, whereas in v7 files will be handled in the following ways.

Small files (16MB or smaller)	Merge into one 16MB data block
Large files (32MB or above)	Split into multiple 32MB data blocks
NAS server	Merge/split into 8MB data block(s)
Mobile device	Remain in native format

The data migration process converts the v6 backup files into v7 backup set format, it will read small files that were stored in v6 backup set, and write a number of small files into a new data blocks. For larger files, the process will read a fixed amount of data which equals to a data block size from the selected large files, and rewrite the data block into a new 32MB data block file. The process will continue until the large file has completed to write the data into multiple new data blocks.

IMPORTANT

As the data migration process is **NOT** reversible. If you downgrade your backup server to v6, the migrated data in v7 will not be usable. All historical backup are lost and you need to start over the backup again in v6. Please communicate with your clients and check if they are comfortable with the upgrade and data migration.

Suggestion and Requirement

The data migration process will perform the backup set migration one by one. To avoid heavy I/O on the disk/CPU utilization on your backup server, we suggest you to perform the data migration in a small batch of users to test the performance on your environment. This would minimize any possible impact on the I/O usage or affect your current backup operation.

The data migration will be carried out if the following criteria are met:

1. Both AhsayCBS and AhsayOBM/AhsayACB are upgraded to v7.7 or later version.
2. More than 100GB of free space in each user home on your backup server is available.
3. For large backup sets that are more than 100GB of total size, please reserve more than 150% of the free space on the user home for the data migration. This is because the migration process will read the v6 backup data and write the v7 format to new location. After the migration, the reserved space will be recovered.

Free Space = Largest v6 backup set on the user home X 150%

For example: If your largest backup set is 150GB backup set, please reserve at least 225GB of free space for the migration.

If these requirements are not met, the data migration will not be started. You may find the following entry in the [**Activities Log**] available in your AhsayCBS, [**Monitoring**] -> [**Administration Logs**]

E.g. MigrateV6DataError [Thread][Job][MigrateV6File]Error Migrating v6 data of user ... is too big to be migrated to ...

By selecting the filter "MigrateV6DataError" from the filter drop down box, you can collect the errors related to the data migration.

Reminders

1. If data replication has been turned on, after the v6 data migrated to the v7 format, the replication will start to replicate new v7 format backup set to the replication server or to a predefined destination
2. You may notice that the storage of that user will be doubled for a short period of time. For example: the replicated v6 backup set is 10GB, after the data migration, another 10GB will be used for replicating the new v7 format backup set. After the synchronization is completed, there is a mechanism to clean up the old migrated v6 data automatically.

How to Perform the Data Migration

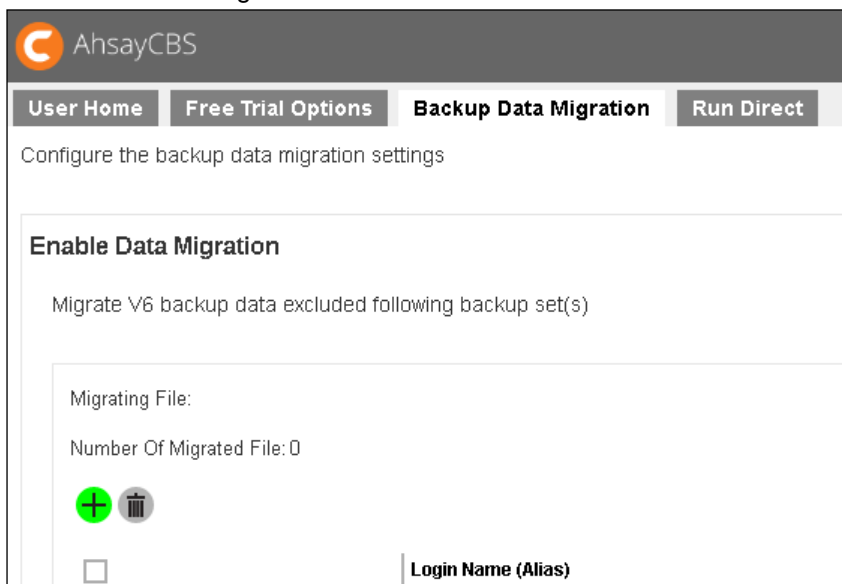
IMPORTANT


While a backup set is undergoing the data migration process, the following activities pertaining to that particular backup set **CANNOT** be performed.

Backup	Restore Backup Data	Data Integrity Check
Space Freeing Up	Delete Data	Delete Backup Set

That being the case, update of the backup set, such as backup schedule, backup source, destination, etc., is still possible during the data migration process.

1. Upgrade both AhsayCBS and AhsayOBM/AhsayACB to version 7.7 or above.
2. Administrator needs to check if any backup set should be excluded in this data migration operation. For example, when we need to limit the number of migration in a small batch of backup sets, we can exclude some of the backup sets from the interface. Click the green “+” icon under the Enable Data Migration section to add the user(s) you wish to exclude from the migration.



3. Click  at the bottom right corner to start the migration when you are ready.
4. Once the backup runs on the client machine, the index migration starts on the client machine. When the index migration finished, the AhsayCBS will arrange the data migration on the backend.
5. Administrator can check the migration activity through the **Monitoring > Administration Logs > Activities Log**.

By selecting the filter "MigrateV6DataInfo" or "MigrateV6DataError" from the filter drop down box, you can collect the logs related to the data migration.

- When the data migration completed on a client's backup set. You will see the following in the activities log.

```
MigrateV6DataInfo [Thread][Job][MigrateV6File] End: migrate v6 data.
```

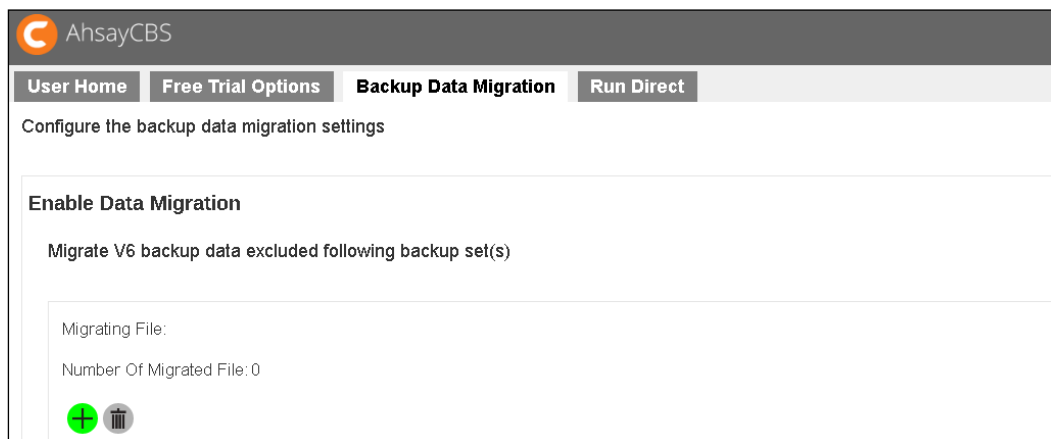
- On the next backup, that client will use the new index and new migrated data for the backup operation. This will also trigger the backup server to remove old v6 backup data.

Note


In case the index migration stops for any reason, on the next backup, the index migration can resume from the last recorded progress.

For backup sets such as Exchange DAG, when one of the node triggered the index migration when backup runs, all other nodes will wait for the first node to complete the index migration, and all other nodes will reload the new index file.




During the old v6 backup data removal, the performance on the user home which stores the v6 backup data could be slow down.




To add the exclusion of a v6 backup set from the data migration:

- Click on the  button under the **Migrating File** section.
- Select the login name and backup set that that you wish to exclude from the data migration.
- Click the “+” button to continue.


To delete an existing exclusion of a v6 backup set:

- Click on the check box next to the entries you wish to delete.
- Click on the  icon in this section.
- Click  to confirm.
- Click  at the bottom right corner to confirm again.

Run Direct

The following shows the **Run Direct** tab under **Backup / Restore > Basic**. It defines the maximum number of virtual machines started by Run Direct on AhsayCBS. Simply enter the number of virtual machine and click  to save your changes.

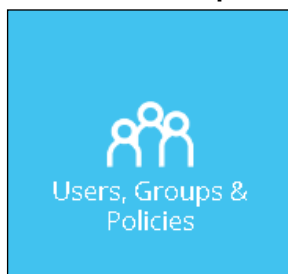
For more information on Run Direct on AhsayCBS, please refer to the [Ahsay Cloud Backup Suite v7 User's Guide](#).



The screenshot shows the AhsayCBS web interface. At the top is a dark grey header with the AhsayCBS logo. Below the header is a navigation bar with four tabs: 'User Home', 'Free Trial Options', 'Backup Data Migration', and 'Run Direct'. The 'Run Direct' tab is currently selected and highlighted. The main content area below the tabs contains the text 'Maximum number of virtual machines started by Run Direct:' followed by a text input field containing the number '1'.

Manage Backup Users

To manage your AhsayCBS users, groups, and policies, simply click the **Users, Groups & Policies** icon under **Backup / Restore** from your AhsayCBS environment.

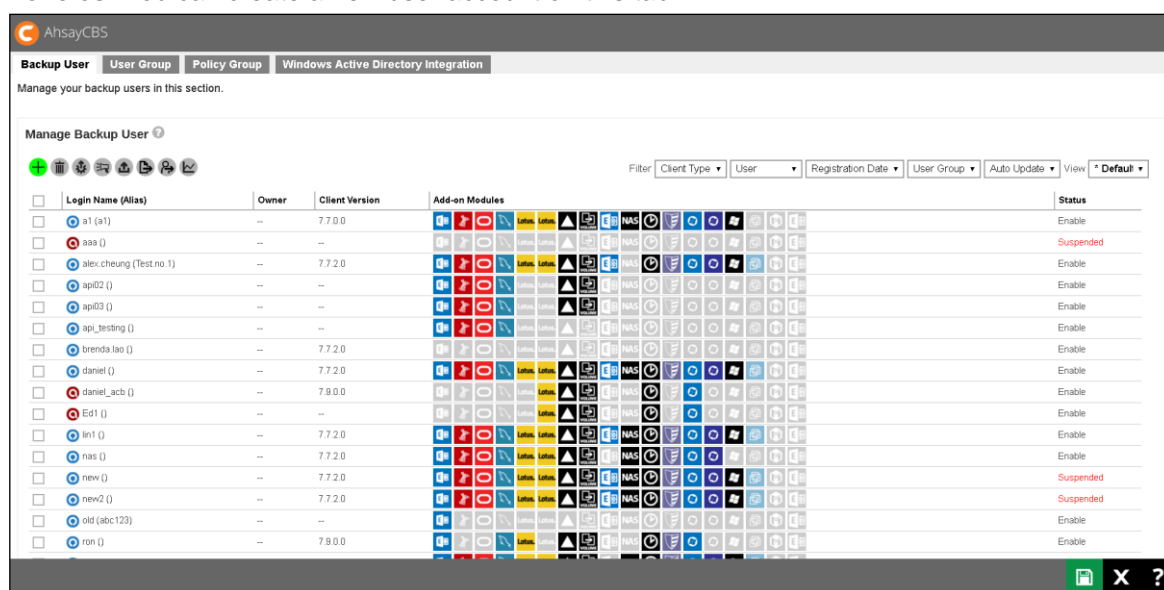


There are 4 tabs under managing users, groups, and policies, each of which is described below.

Backup User Tab

A backup account contains user's account information, client type, backup modules and backup set settings, etc. A backup user account can be created by administrator or registered via the backup client application by the end user as a trial account (if this option is enabled).

The following screen shows the **Backup User** tab under **Backup / Restore > Users, Groups & Policies**. You can create a new user account on this tab.



<input type="checkbox"/>	Login Name (Alias)	Owner	Client Version	Add-on Modules	Status
<input type="checkbox"/>	a1 (a1)	--	7.7.0.0	[Icons]	Enable
<input type="checkbox"/>	aaa ()	--	--	[Icons]	Suspended
<input type="checkbox"/>	alex cheung (Test.no.1)	--	7.7.2.0	[Icons]	Enable
<input type="checkbox"/>	api02 ()	--	--	[Icons]	Enable
<input type="checkbox"/>	api03 ()	--	--	[Icons]	Enable
<input type="checkbox"/>	api_testing ()	--	--	[Icons]	Enable
<input type="checkbox"/>	brenda.lao ()	--	7.7.2.0	[Icons]	Enable
<input type="checkbox"/>	daniel ()	--	7.7.2.0	[Icons]	Enable
<input type="checkbox"/>	daniel_acb ()	--	7.9.0.0	[Icons]	Enable
<input type="checkbox"/>	Ed1 ()	--	--	[Icons]	Enable
<input type="checkbox"/>	lin1 ()	--	7.7.2.0	[Icons]	Enable
<input type="checkbox"/>	nas ()	--	7.7.2.0	[Icons]	Enable
<input type="checkbox"/>	new ()	--	7.7.2.0	[Icons]	Suspended
<input type="checkbox"/>	new2 ()	--	7.7.2.0	[Icons]	Suspended
<input type="checkbox"/>	old (abc123)	--	--	[Icons]	Enable
<input type="checkbox"/>	ron ()	--	7.9.0.0	[Icons]	Enable

If AhsayCBS is deployed for internal use, as a system administrator, you need to determine the following when you create a backup account:

- 1 Backup client type, whether it is **AhsayOBM** or **AhsayACB**
- 1 Backup destination

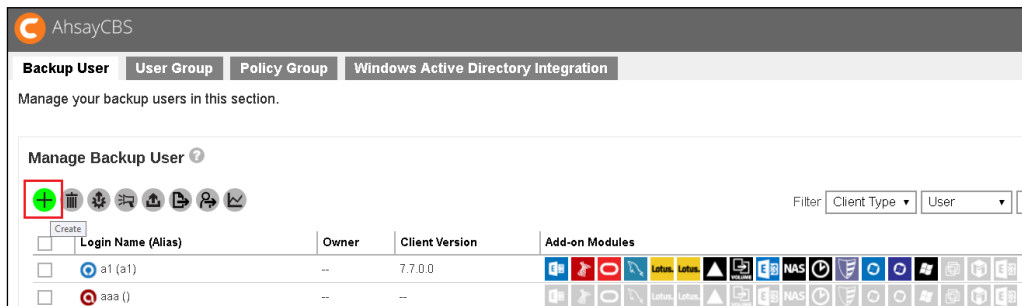
If you are a Managed Service Provider (MSP) or reseller you may require to take into consideration the following items when you create a backup user account:

- Types of users, whether it is **Paid** or **Trial**
- Backup client type, whether it is **AhsayOBM** or **AhsayACB**. Also the modules subscribed by the client.
- The backup destination and the subscribed quota

Create a New Backup User

To create a new backup user, do the following:

1. Click the **Create (+)** button as highlighted below.



2. The **Add New User** page appears.

The screenshot shows the 'Add New User' form. The title is 'Add New User'. Below the title is a subtitle: 'Enter the login credentials required for accessing Ahsay Cloud Backup Suite, and assign this user to appropriate user groups.' The form is divided into two main sections: 'General' and 'User Group'. The 'General' section has a 'Login Name' field, a 'Password' field, and an 'Owner' field. The 'User Group' section has a 'Create (+)' button (highlighted with a green circle) and a table with columns: 'Name', 'Owner', and 'No. of users'. The table contains one row: 'All Users' with owner '--' and 'No. of users' '8'.

- Enter the **Login Name**, **Password**, and select the **User Group** by checking the desired user group. Click the **Right Arrow (->)** at the bottom of the page to proceed.

Add New User


Enter the login credentials required for accessing Ahsay Cloud Backup Suite, and assign this user to appropriate user groups.

General

Login Name
 Owner:

Password

User Group ?

<input type="checkbox"/>	Name	Owner	No. of users
<input type="checkbox"/>	All Users	--	8

- Enter the following information that appears on this page.

Field	Description
Alias	Another name of the backup user.
Home Directory	You can select Auto assigned or Manually assigned user home path. The user backup data will be stored here.
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. Trial users are subject to automatic removal as defined by the Free Trial Options tab under Backup / Restore > Basic . The automatic removal option can be disabled.
Suspend At	A scheduled date to suspend this user. For trial users, the suspension date is based on the settings in the Free Trial Options tab under Backup / Restore > Basic .
Status	There are 3 types of status for a user account: Enable , Suspended , and Locked . Under normal circumstances, administrator may change the Enable or Suspended status of a user. The Locked status is referring to account lockout rules that are set inside the policy group, refer to the Managing Policy Groups section for more details. For example, if a user has 3 consecutive unsuccessful login attempts in 30 minutes, the user account will be locked out.
Upload Encryption Key	Once you enabled the encryption recovery option, the encryption key file is uploaded to the backup server. In case the user forgot the encryption key, you can still contact us to have it recovered. The recovered encryption key will be sent directly to the email

	address registered on the user account. Refer to the Encryption key section for further details.
Language	Preferred language for all email reports of the backup user.
Timezone	Time zone of the backup user.
Notes	A field for administrators to add notes for the backup user.

The screenshot shows a web-based configuration form for a backup user. The form is organized into several sections: 'Alias' with a text input; 'Home Directory' with radio buttons for 'Auto assigned' and 'Manually assigned' (with a file path dropdown); 'Subscription Type' with radio buttons for 'Trial User' and 'Paid User'; 'Suspend At' with a date picker; 'Status' with radio buttons for 'Enable', 'Suspended', and 'Locked'; 'Upload Encryption Key' with a checked checkbox and a note; 'Language' with a dropdown menu; 'Timezone' with a dropdown menu; and 'Notes' with a text area. At the bottom right, there are four navigation buttons: a left arrow, a right arrow, a close button (X), and a help button (?).

Click the **Right Arrow (->)** at the bottom of the page to proceed when you are done with the settings.

- Enter the following information that appears on this page.

Field	Description
Backup Client	If the backup client machine requires to backup files only, such as a desktop computer or a notebook, then you can simply create an AhsayACB backup account. Otherwise, you will need to setup AhsayOBM , because it comes with backup modules to perform Windows system backup, database backup and virtual machine backup. By default AhsayACB backup account is selected.
Add-on Modules	You can select which add-on module to enable for the backup user. Some add-on modules has a text field after its name. For example, the number after Microsoft Exchange Mailbox defines the number of Exchange mailboxes that are allowed to be backed up under this user account.

Quota	Backup Quota of all the destinations except local destination for the user account. Refer to the User Settings Tab section for details.
Client host limit	This is to limit the maximum number of hosts allowed in a client's backup account, i.e. the number of devices that they can install AhsayOBM/AhsayACB on. Refer to the User Settings Tab section for details.
Run Direct (For AhsayOBM only)	Set the maximum number of VMs for VM Run Direct restore on AhsayCBS for this user. Refer to the Run Direct section for details.

AhsayACB User Account

Add New User

Select the backup client software, usable add-on modules and the available quota for this user.

Backup Client

☐ AhsayOBM User
 ☒ AhsayACB User

Add-on Modules

☐ Windows System Backup
 ☐ Lotus Notes

☐ Volume Shadow Copy
 ☐ Continuous Data Protection

☐ In-File Delta
 ☐ Mobile

☐ Office 365 Exchange Online Backup
☐ OpenDirect / Granular Restore

Quota

Client host limit

☐
 Maximum number of host

AhsayOBM User Account

Add New User

Select the backup client software, usable add-on modules and the available quota for this user.

Backup Client
☒ AhsayOBM User ☐ AhsayACB User

Add-on Modules

<input type="checkbox"/> Microsoft Exchange Server	<input type="checkbox"/> Microsoft SQL Server
<input type="checkbox"/> MySQL Database Server	<input type="checkbox"/> Oracle Database Server
<input type="checkbox"/> Lotus Domino	<input type="checkbox"/> Lotus Notes
<input type="checkbox"/> Windows System Backup	<input type="checkbox"/> Windows System State Backup
<input type="checkbox"/> VMware <input type="text" value="Guest VM"/> <input type="text" value="0"/>	<input type="checkbox"/> Hyper-V <input type="text" value="Guest VM"/> <input type="text" value="0"/>
<input type="checkbox"/> Microsoft Exchange Mailbox <input type="text" value="0"/>	<input type="checkbox"/> ShadowProtect System Backup
<input type="checkbox"/> NAS	<input type="checkbox"/> Continuous Data Protection
<input type="checkbox"/> Volume Shadow Copy	<input type="checkbox"/> Mobile <input type="text" value="0"/>
<input type="checkbox"/> In-File Delta	<input type="checkbox"/> OpenDirect / Granular Restore <input type="text" value="0"/>
<input type="checkbox"/> Office 365 Exchange Online Backup <input type="text" value="0"/>	

Quota

Client host limit
☐ Maximum number of host



Run Direct
☐ Maximum number of VM

Click the **Right Arrow (->)** at the bottom of the page to proceed when you are done with the settings.

- This page allows you to add contact person information for this user. Click the **+** button to add new contact information.

Add New User

Add contact persons information for this user.

Manage Contact Information ?
 
☐

7. Enter the contact information such as **Name**, **Email**, **Address**, etc. In our example, the name of the contact is **john**.

Contact

Name

Email

☐ Encrypt Email

Address

Company

Website

Phone 1

Phone 2

Click the **+** icon at the bottom right hand corner of the page to proceed when you are done with the settings.

8. A new contact called **john** is added.

Add New User

Add contact persons information for this user.

Manage Contact Information ?

☐

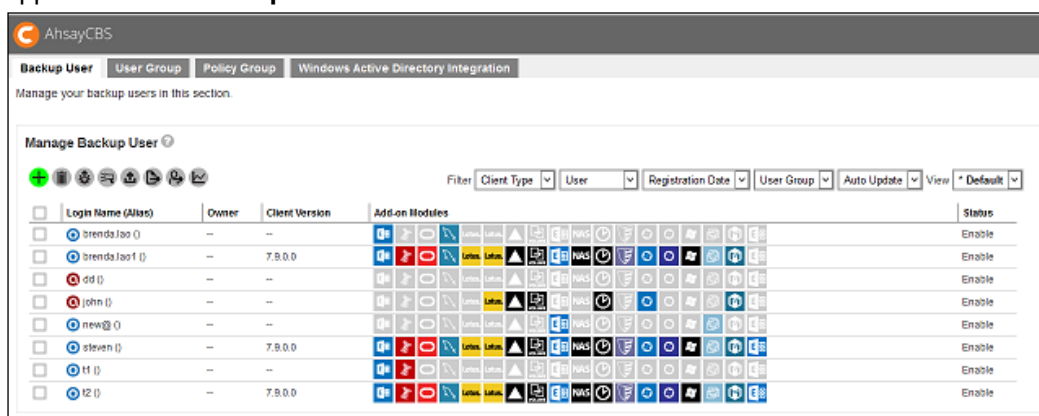
Name


Email

Encrypt Email

☐johnjohn_backupservice@gmail.comNo

- Click the **+** icon at the bottom right corner of the page to confirm. The newly added user appears on the **Backup User** tab as shown below.



- Click  at the bottom right corner of the page to confirm.

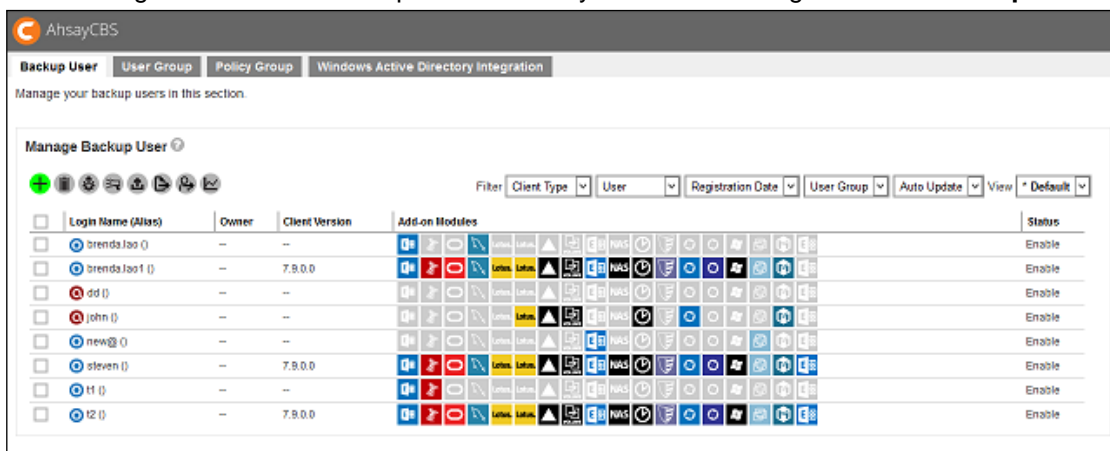
Managing Backup Users

After you have created a backup user in previous section, you can perform the following operation for your users such as:

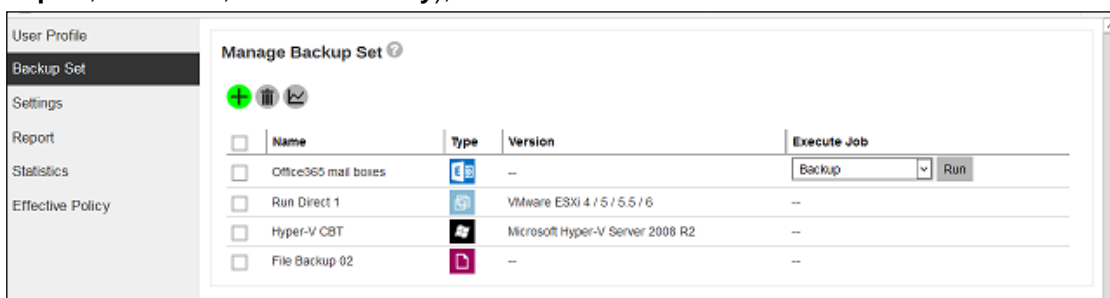
- Customize backup users profile settings
- Customize subscribed modules
- Create backup sets
- View backup/restore reports
- View usage statistics
- Manage the policies applied to a user
- Update client software via the auto update agent
- Send broadcast message to users
- Export usage to a CSV file
- Export users
- Rebuild storage statistic

Accessing the Backup User

Click the login name of the backup user account you want to manage from the **Backup User** tab.



The backup user account opens. You will see 6 tabs (**User Profile**, **Backup Set**, **Settings**, **Report**, **Statistics**, **Effective Policy**), each of which is described in detail below.



User Profile

The User Profile tab contains user backup account settings information, subscribed modules, backup quota, subscription type, contact information and user group information. It is located under **Users, Groups & Policies > Backup User**. It is sub divided into four tabs, as described below.

➤ General Tab

The screenshot shows a web browser window with the URL <https://10.23.6.../EditUser.do>. The page title is "User Profile". The left sidebar contains links: Backup Set, Settings, Report, Statistics, and Effective Policy. The main content area has four tabs: General (selected), Backup Client Settings, Contact, and User Group. The "General" tab displays "General information of this user." and includes the following sections:

- Basic**
 - ID: 1471944501286
 - Login Name: [text input] Owner: [text input]
 - Password: [text input] Hashed: [text input]
 - New Password: [text input]
 - Alias: [text input]
- Home Directory**
 - [text input: C:\Program Files\AhsayCBS\user\12]
- Subscription Type**
 - ☐ Trial User
 - ☒ Paid User
- Suspend At**
 - ☐ 22-Sep-2016
- Status**
 - ☒ Enable
 - ☐ Suspended

At the bottom right of the form are three buttons: a checkmark (✓), an 'X', and a question mark (?).

- ➊ **New Password** - Change or reset the password for this user, in case if they forgot the current password.
- ➋ **Alias** – Update the alias for this user.
- ➌ **Subscription Type** – Change the type from Trial User to a Paid User, for example after a user subscribes to backup service after a trial.
- ➍ **Suspend At** – Scheduled date to suspend this user's account.
- ➎ **Status** – Suspend or enable locked accounts
- ➏ **Upload Encryption Key** – Enable or disable the "Upload Encryption Key" feature.
- ➐ **Language** - Preferred language for all email reports of the backup user.
- ➑ **Timezone** – Update the time zone of the backup user.
- ➒ **Notes** – Add or update notes about this user.

➤ Backup Client Settings Tab

The screenshot shows the 'Backup Client Settings' tab for a user profile. The 'Backup Client' section has two radio buttons: 'AhsayOBM User' (selected) and 'AhsayACB User'. The 'Add-on Modules' section lists various backup modules with checkboxes and input fields. The 'Quota' section has a text input '50.0' and a dropdown 'Gbytes'. The 'Per Destination' section has a table with columns 'Destination' and 'Quota'. The 'Client host limit' section has a checkbox and a text input '1'. The 'Run Direct' section is at the bottom.

Add-on Modules	
<input checked="" type="checkbox"/> Microsoft Exchange Server	<input checked="" type="checkbox"/> Microsoft SQL Server
<input checked="" type="checkbox"/> MySQL Database Server	<input checked="" type="checkbox"/> Oracle Database Server
<input checked="" type="checkbox"/> Lotus Domino	<input checked="" type="checkbox"/> Lotus Notes
<input checked="" type="checkbox"/> Windows System Backup	<input checked="" type="checkbox"/> Windows System State Backup
<input type="checkbox"/> VMware <input type="text" value="Guest VM"/> <input type="text" value="0"/>	<input type="checkbox"/> Hyper-V <input type="text" value="Guest VM"/> <input type="text" value="0"/>
<input type="checkbox"/> Microsoft Exchange Mailbox <input type="text" value="0"/>	<input checked="" type="checkbox"/> ShadowProtect System Backup
<input type="checkbox"/> NAS	<input checked="" type="checkbox"/> Continuous Data Protection
<input checked="" type="checkbox"/> Volume Shadow Copy	<input type="checkbox"/> Mobile <input type="text" value="0"/>
<input checked="" type="checkbox"/> In-File Delta	<input type="checkbox"/> OpenDirect / Granular Restore <input type="text" value="0"/>
<input type="checkbox"/> Office 365 Exchange Online Backup <input type="text" value="0"/>	

Destination	Quota
<input type="checkbox"/> AhsayCBS(-)	<input type="text" value="0.0"/> <input type="text" value="Gbytes"/>

- Backup Client** - Type of backup user account, AhsayOBM or AhsayACB. In case you need to change the backup client type, it is better to check if there are existing backup sets in the backup account. For example, if you have an AhsayOBM user account with Exchange backup set and you change the account type to AhsayACB, the Exchange backup set will not be run due to the backup client type does not match.
- Add-on Modules** – Below is a short summary of the add-on modules available for both AhsayOBM and AhsayACB

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	<p>Backup and restore of Microsoft SQL Server.</p> <p>Refer to the following link for how to use Microsoft SQL Server with AhsayOBM client:</p> <p>Ahsay Online Backup Manager v7 Microsoft SQL Server Backup and Restore Guide</p>	✓	✗
MySQL Database Server	<p>Backup and restore of MySQL Database Server.</p> <p>Refer to the following link for how to use MySQL Database for the Windows platform with AhsayOBM client:</p> <p>Ahsay Online Backup Manager v7 MySQL Database Backup and Restore for Windows</p> <p>Refer to the following link for how to use MySQL Database for the Linux platform with AhsayOBM client:</p> <p>Ahsay Online Backup Manager v7 MySQL Database Backup and Restore for Linux (CLI)</p>	✓	✗
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	<p>Backup and restore of Windows System Backup.</p> <p>Refer to the following link for how to use Windows System Backup with AhsayOBM and AhsayACB clients:</p> <p>Ahsay Online Backup Manager v7 Microsoft System Backup and Restore Guide</p>	✓	✓
Windows System State Backup	<p>Backup and restore of Windows System State Backup.</p> <p>Refer to the following link for how to use Windows System State Backup with AhsayOBM client:</p> <p>Ahsay Online Backup Manager v7 Microsoft System State Backup and Restore Guide</p>	✓	✗
VMware	<p>Backup and restore of VMware guest VMs.</p> <p>Refer to the following link for how to use VMware VCenter/ESXi with AhsayOBM client:</p> <p>Ahsay Online Backup Manager v7VMware vCenter/ESXi Backup and Restore Guide</p>	✓	✗

Hyper-V	<p>Backup and restore of Hyper-V guest VMs.</p> <p>Refer to the following link for how to use Microsoft Hyper-V with AhsayOBM client:</p> <p>Ahsay Online Backup Manager v7 Microsoft Hyper-V Backup and Restore Guide</p>	✓	x
Microsoft Exchange Mailbox	<p>Backup and restore of Microsoft Exchange Mailboxes.</p> <p>Refer to the following link for how to use Microsoft Exchange Mailbox with AhsayOBM client:</p> <p>Ahsay Online Backup Manager v7 Microsoft Exchange Mail-Level Backup & Restore Guide</p>	✓	x
NAS	<p>Backup and restore of file on Synology NAS devices.</p> <p>Refer to the following link for how to use the Synology NAS with AhsayOBM client:</p> <p>Ahsay Online Backup Manager v7 Quick Start Guide for Synology NAS</p> <p>Refer to the following link for a list of Synology hardware compatible with AhsayOBM:</p> <p>FAQ: Ahsay Hardware Compatibility List (HRL) for AhsayOBM on Synology NAS (5058)</p>	✓	x
Shadow Protect System Backup	Backup and restore of Shadow Protect System image (requires Shadow Protect)	✓	x
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	<p>Backup and restore of Mobile (iOS and Android)</p> <p>Refer to the following links for instructions on using the AhsayMOB for Android and iOS platforms.</p> <ul style="list-style-type: none"> - AhsayMOB v7 User Guide – Android 	✓	✓

	- AhsayMOB v7 User Guide - iOS		
Office 365 Exchange Online	Backup and restore of Office 365 Exchange mailboxes. Refer to the following link for instructions on using the 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. - Ahsay Online Backup Manager v7 Quick Start Guide for Windows - Ahsay A-Click Backup v7 Quick Start Guide for Windows - Ahsay Online Backup Manager v7 Microsoft Hyper-V Backup and Restore Guide - Ahsay Online Backup Manager v7VMware vCenter/ESXi Backup and Restore Guide	✓	x

- **Quota** - backup quota reserved on all the destinations except local destination for the user account.

Note: the backup quota of a VMware VDDK backup set should be set to a value that is higher than the provision size. Even if the backup only upload the actual usage, if the quota is smaller than the provision size, the backup would fail with quota exceed.

- **Per Destination** – It refers to the backup storage quota on each cloud backup destination defined by the administrator. If no backup quota is assigned for that destination, the general quota will be used.

Examples: There sets total 900Gbytes quota for all the destinations of the user account, and there are 2 destinations in total, AhsayCBS and Google Drive.

1. 100Gbytes for AhsayCBS, no backup quota assigned for Google Drive, it means that the limit of quota is 100Gbytes for AhsayCBS and general quota is used by Google Drive, but total quota cannot exceed 900Gbytes.

Quota

900 Gbytes

Per Destination

<input type="checkbox"/>	Destination	Quota
<input type="checkbox"/>	AhsayCBS(--)	100 Gbytes
<input type="checkbox"/>	Google Drive(Google Account: Jalin)	0.0 Gbytes

2. No backup quota assigned for either AhsayCBS or Google Drive, it means that general quota will be used by both of the destinations, but total quota cannot exceed 900Gbytes.

Quota

900 Gbytes

Per Destination

<input type="checkbox"/>	Destination	Quota
<input type="checkbox"/>	AhsayCBS(--)	0.0 Gbytes
<input type="checkbox"/>	Google Drive(Google Account: Jalin)	0.0 Gbytes

Note: The quota sum of all the destinations cannot exceed the total quota assigned to the user account.

- **Client Host Limit** - Set the maximum number of host machine or devices the backup user can install AhsayOBM/AhsayACB on.
- **Run Direct** – Set the maximum number of VMs for VM Run Direct restore on AhsayCBS for this user.

➤ Contact Tab

User Profile

Backup Set
Settings
Report
Statistics
Effective Policy

General **Backup Client Settings** **Contact** **User Group**

Contact information for this user.

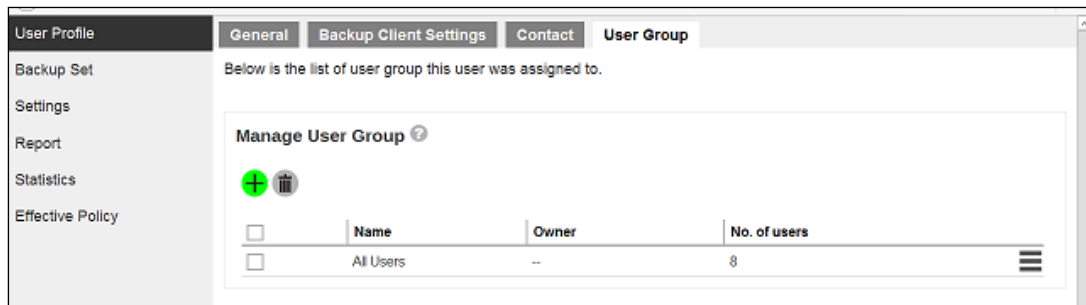
Manage Contact Information ?

☐ ☐

<input type="checkbox"/>	Name	Email	Encrypt Email
<input type="checkbox"/>	Ahsay	ahsaycsv2007@gmail.com	No

You can configure the client contact here for them to receive backup or restore reports.

➤ User Group Tab



You can assign the user to an existing/assigned user group. When you drag the user group with the side button, it will affect the sequence of the policy rules that will apply to the user.

Backup Set

This menu is used to create backup set for this user account. In some cases, you may need to create backup sets first before you install a backup client on the client machine, or it may be an alternative for administrator to create/modify a backup set for Linux users with no graphical interface, or there may be access restrictions for administrator to access the backup machine again after the backup client installed.

The following shows the Backup Set tab under **Users, Groups & Policies > Backup User**.

The screenshot shows the 'Manage Backup Set' window. On the left is a sidebar with tabs: 'User Profile', 'Backup Set' (selected), 'Settings', 'Report', 'Statistics', and 'Effective Policy'. The main area is titled 'Manage Backup Set' and contains a table of backup sets. Above the table are three icons: a green plus, a trash can, and a refresh. The table has columns for 'Name', 'Type', 'Version', and 'Execute Job'. There are three rows of backup sets, each with a checkbox on the left.

<input type="checkbox"/>	Name	Type	Version	Execute Job
<input type="checkbox"/>	Office365 mail boxes primary	Office 365	--	Backup [dropdown] [Run]
<input type="checkbox"/>	Run Direct 1	VMware ESXi	VMware ESXi 4 / 5 / 5.5 / 6	--
<input type="checkbox"/>	Hyper-V CBT	Microsoft Hyper-V	Microsoft Hyper-V Server 2008 R2	--

Accessing the Backup Set

Click the backup set name of the user account 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

The screenshot shows the 'General' tab for a backup set. The left sidebar has tabs: 'General' (selected), 'Source', 'Backup Schedule', 'Continuous Backup', 'Destination', 'In-File Delta', 'Retention Policy', 'Command Line Tool', 'Reminder', 'Bandwidth Control', 'IP Allowed for Restore', and 'Others'. The main area is titled 'General' and contains fields for 'ID' (1474532989673), 'Name' (Run Direct 1), 'Owner' (WIN-TU41RC45MK0), and 'Type' (VMware Backup). Below this is a section titled 'VMware Host' with fields for 'Version' (VMware ESXi 4 / 5 / 5.5 / 6), 'Username' (root), 'Password' (masked), 'Host', and 'Port'.

Recovering Encryption Key via AhsayCBS Web Console

From AhsayCBS v7.9.2.0 onwards, it is possible to engage the **AhsayCBS v7 Encryption Key Recovery Service** via the AhsayCBS web console under the **Others** menu of this section. [Click here](#) for details on the scope of this professional service.

Required Permission

Only system user with **Admin** role has the right to access the Recover Encryption Key feature via AhsayCBS web console.

Required Settings

Encryption key is recoverable only if the following three settings are **ENABLED**:

- The **Upload Encryption Key** feature in the [Encryption Key](#) section under the **Users, Group & Policies > Policy Group > %Policy Group Name % > User Settings** menu which applies to the corresponding backup set.
- The **Encryption Recovery** feature under the **Profile > Encryption Recovery** menu in your AhsayOBM or AhsayACB.
- The **Upload Encryption Key** feature under the [Users, Group & Policies > Backup User > %User Name % > User Profile](#) of the backup user requesting for key recovery.

With these three features on, encryption keys will be uploaded to the backup server during the backup process, so as to make recovery possible.

Preparation before Getting Started

Make sure the following items are valid before getting started with the encryption key recovery process.

- Valid login credentials to log on to the Ahsay Shopping Centre.
- Valid maintenance. For inquiries about maintenance, please contact our Sales Team at partners-kb@ahsay.com.

Encryption Key Recovery for Branded AhsayCBS

Background

If your AhsayCBS is branded, the Recover Encryption Key feature is HIDDEN by default. This measure is enforced to prevent backup users from accessing the Ahsay Shopping Centre directly after clicking the Recover Encryption Key button under a branding environment.

What is a branded AhsayCBS

Your AhsayCBS is considered “branded” when the following criteria are met:

Under the **System Settings > Basic > Administrative Access > %system user% > Rebrand Web Console > User Interface** page in the web management console, if any one of the following parameters is not empty or not holding default image:

Title	Product Name	User Interface logo	Report logo
AhsayCBS logo	AhsayOBM logo	AhsayACB logo	

Force enable the Recover Encryption Key feature

The Recover Encryption Key button can be forced to show by enabling the debug option as shown below in the **cbs.opt** file under the **%CBS_INSTALL%\conf** folder. This debug option will make the Recover Encryption Key button visible to backup users even if the AhsayCBS is branded.

com.ahsay.cbs.system.config.accounts.editSysUserBean.ShowRecoveryEncryptionKeyBtn.debug=true

Recovery Steps

Follow the steps below to submit an encryption key recovery request.

1. Click on the backup set, which you wish to recover the encryption key for, under the Manage Backup Set section.
2. Navigate to the **Others** tab.

General

Source

Backup Schedule

Continuous Backup

Destination

In-File Delta

Retention Policy

Command Line Tool

Reminder

Bandwidth Control

IP Allowed for Restore

Others

Temporary Directory

Temporary directory for storing backup files

C:\Users\steven.tse\temp

☒ Remove temporary files after backup

Follow Link

☒ Follow link of the backup files

Volume Shadow Copy

☒ Enable Windows' Volume Shadow Copy for open file backup

Compressions

Select compression type

Fast (Compressed size larger than normal) ▼

Encryption

Encrypting key *****

Algorithm AES

Method CBC

Key length 256

Recover Encryption Key

3. Look for the **Encryption** sub-section on this page and click on the **Recover Encryption Key** button.

Encryption

Encrypting key	*****
Algorithm	AES
Method	CBC
Key length	256

Recover Encryption Key

4. You will be prompted to log in to the Ahsay Shopping Centre as shown below, if you have not done so yet.

Ahsay Backup Software

Home | About Ahsay™ | News | Forums

Partners Login

Login as Ahsay Partner and continue accessing shop.ahsay.com

Username:

Password:

LoginReset

[User Registration](#)

Already a Partner?

If you do not have the login password, please enter your registered email to reset the password.

Registered Email:

Reset Password

5. Upon successful login, you will be re-directed to the Ahsay Shopping Centre to proceed with the encryption key recovery process. You will see a page with your User ID, license information and backup set name listed as shown.

HomeOfferInvoiceLogProfileLogout (15169AbC123)

Contact Us0 item(s) - HKD0.00Shopping CartHow to BuyLast updated: 2017-01-19 18:45:15

DeleteView Name * Payment Pending Invoices

Invoice No.	Company Name	Amount (HK\$)	Outstanding Amount (HK\$)	Invoice Date	Payment	Pay By Client No.	Delivery
345429	15169AbC123	HK\$780.00	HK\$780.00	2017-01-09	Processing	S-000-009-126	Pending

Recovery Encryption Key Option

Please select the Recipient Email Address for generating the Invoice. Double check the below information and confirm the information are correct. Invoice will not be generated if below information is/are missing.

User ID : 114562

Product Key : ePo7z-axFW/-06kqP-MW3qP-/w

Licensee Name : 15169AbC123

Backup Set Name : default-backup-set-name-4

Recipient : steven.tse@ahsay.com

+ Generate Now

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- In the **Recipient** drop-down menu, the backup user's email will be selected as the primary recipient of the decrypted key by default, provided that the backup user has provided an email in his/her user profile. Otherwise, the decrypted key will be sent to you instead, where you can choose to deliver to either your Primary or Alternative Email registered under your account.

Click **Generate Now** when you are ready to proceed.

Home • Offer • Invoice • Log • Profile • Logout (15169AbC123)

Contact Us 0 item(s) - HKD0.00 Shopping Cart How to Buy Last updated: 2017-01-19 18:45:15

Delete View Name * Payment Pending Invoices

Invoice No.	Company Name	Amount (HK\$)	Outstanding Amount (HK\$)	Invoice Date	Payment	Pay By Client No.	Delivery
345429	15169AbC123	HK\$780.00	HK\$780.00	2017-01-09	Processing	S-000-009-126	Pending

Recovery Encryption Key Option

Please select the Recipient Email Address for generating the Invoice.
Double check the below information and confirm the information are correct.
Invoice will not be generated if below information is/are missing.

User ID : 114562
Product Key : ePo7z-axFW-06kqP-MW3qP-w
Licensee Name : 15169AbC123
Backup Set Name : default-backup-set-name-4
Recipient : steven.tse@ahsay.com
steven.tse@ahsay.com
hugo.chan@ahsay.com

+ Generate Now

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- You will then be taken to the Invoice page where you can confirm the details of the Encryption Key Recovery Service and the service price. Click the **Pay Now** button when you are ready to proceed with payment.

Edit Invoice

Invoice No. : 345459 Invoice Date : 2017-01-19
Client No. : S-000-009-126 Invoice Expiry Date : 2017-01-26
Company Name : 15169AbC123
Address : Ahsay
Pay By : S-000-009-126

Pay Now

Invoice Details Payment Delivery Log

Items

[+ Edit](#)

Description	Qty	Unit Price (HK\$)	Amt (HK\$)
AhsayCBS v7 Encryption Key Recovery Service			
Options:- Product Key=ePo7z-axFW-06kqP-MW3qP-w Licensee Name=15169AbC123 Contact Email=steven.tse@ahsay.com Backup Set Name=default-backup-set-name-4	1	HK\$390.00	HK\$390.00
Total Amount			HK\$390.00

8. Select the desired payment method on this page. You are strongly recommended to pay by Credit Card so that the payment can be confirmed immediately in order to expedite the recovery process. Click **OK** when you are ready to proceed.

Invoice ID : 346571
Total Amount : HK\$390.00
Payment Method : Credit Card
Credit Card
TT
Bank In (Hong Kong Customers Only)
Cheque (Hong Kong Customers Only)

Credits

*Purchase deposit will be used automatically if there are applicable items.

Withdraw Item	In Stock
Purchase Deposit	HK\$30,030.00

OK Cancel

9. Depending on the payment method you have selected, you will be taken to the corresponding page to process your payment. Follow the relevant on-screen instructions to confirm the payment.
10. When the payment is processed successfully, you will be re-directed to the Invoice page again with the green icon labeled **Paid** as shown.

The Encryption Key Recovery request process is now completed.

Invoice No. : 345459
Client No. : S-000-009-126
Company Name : 15169AbC123
Address : Ahsay
Pay By : S-000-009-126

Invoice Date : 2017-01-19
Invoice Expiry Date : 2017-01-26

Paid

Items

Description	Qty	Unit Price (HK\$)	Amt (HK\$)
AhsayCBS v7 Encryption Key Recovery Service			
Options:- Product Key=eP67z-axFWW-06kqP-MW3qP-Aw Licensee Name=15169AbC123 Contact Email=steven.tse@ahsay.com Backup Set Name=default-backup-set-name-4	1	HK\$390.00	HK\$390.00
Purchase Deposit			(HK\$390.00)
Total Amount			HK\$0.00

11. The decrypted key will be delivered to the selected email within 15 minutes after the payment has been confirmed.

12. Below is a sample of the email with the decrypted key delivered.

From: localhost <Delivery@Service.com >
To: 'gavin.fu@Service.com' <gavin.fu@Service.com>
Date: 07/04/2017 11:58 AM
Subject: Service Delivery of Encryption Key Recovery Service - Ref#393022

Dear Customer,

Thank you for your continual support.

Delivery items:

Reference #393022

Item : Encryption Key Recovery Service

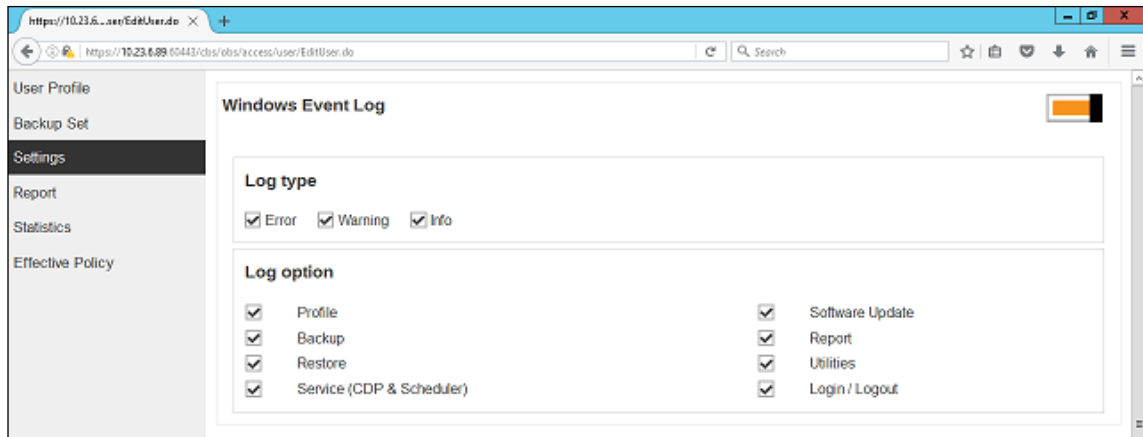
Backup Set Name : Admin-BackupSet

Backup Set Encryption Key : AbC123\$%

Settings

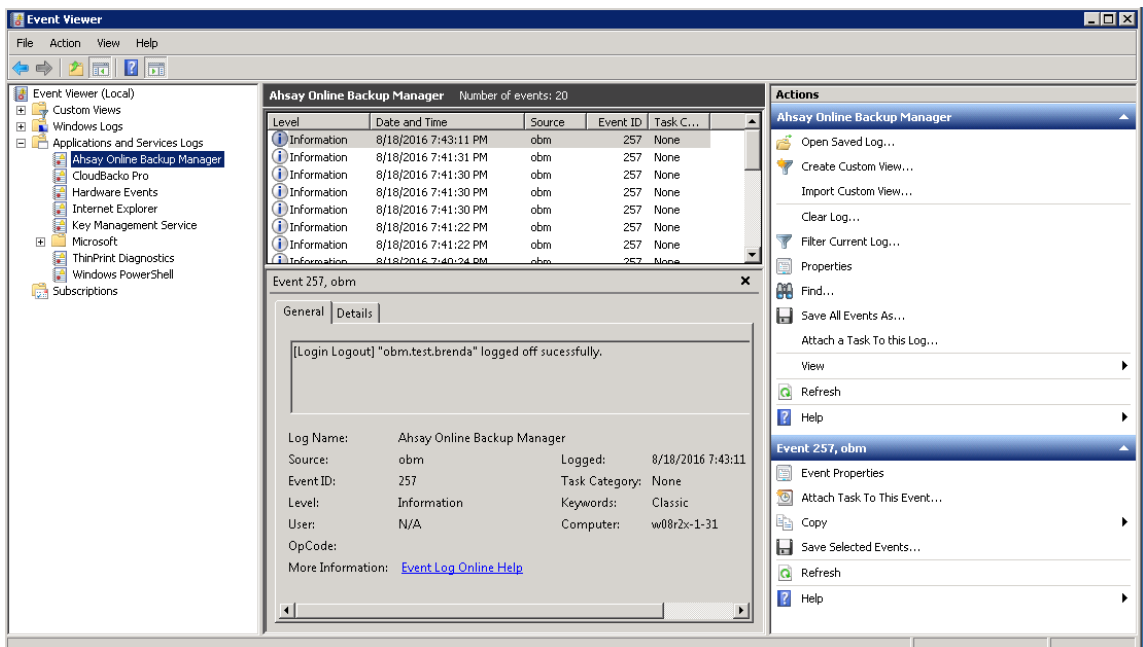
The **Settings** tab allows user to backup client to log the optional events, besides AhsayOBM/AhsayACB logs, to the Windows event log. This feature is supported on AhsayOBM/AhsayACB clients installed on Windows platform only.

Windows event log



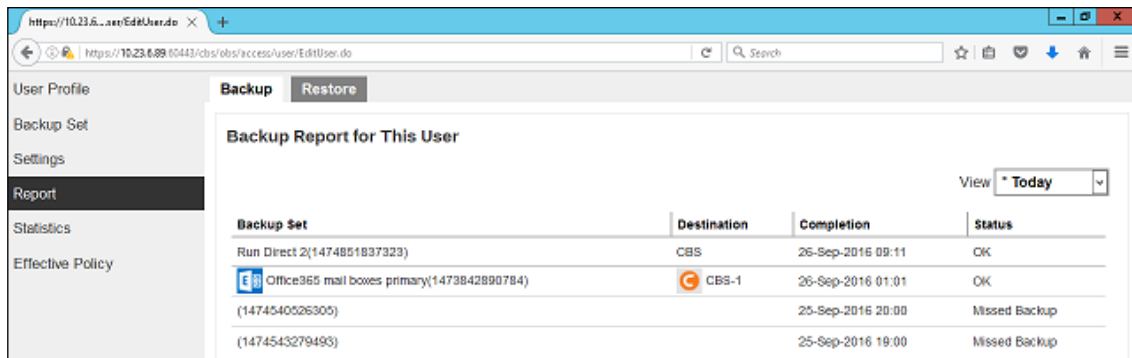
- ❶ **Log type** – There are 3 log types: **Error**, **Warning** and **Info**. Select any of the 3 log types, they will be logged in the Windows event log.
- ❷ **Log option** - Select the desired log option to be captured in the Windows event log. Currently there are 8 different log options: **Profile**, **Backup**, **Restore**, **Service (CDP & Scheduler)**, **Software Update**, **Report**, **Utilities**, **Login/ Logout**.

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

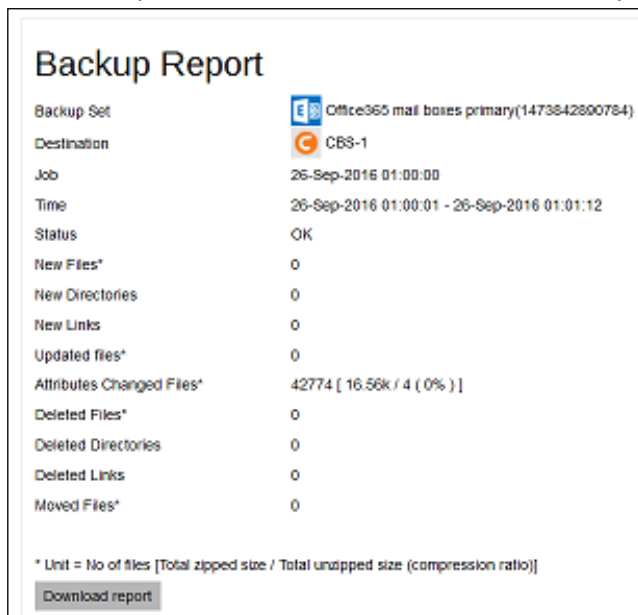


Report

The **Report** tab allows you to check the backup report and restore report for the backup user.



Click the report to see the details. Below is an example of a backup report.



Click the **Download report** button at the bottom of the **Backup Report** page to download the complete report in PDF format. The report contains the following information in details.

- Backup Job Summary
- Backup Set Settings
- Backup Logs
- Backup Files

Note

The **Download report** button should be visible around 20 minutes after the backup job has completed.

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 generate any 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

The Statistics tab allows you to 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 dates.

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

Usage **Summary**

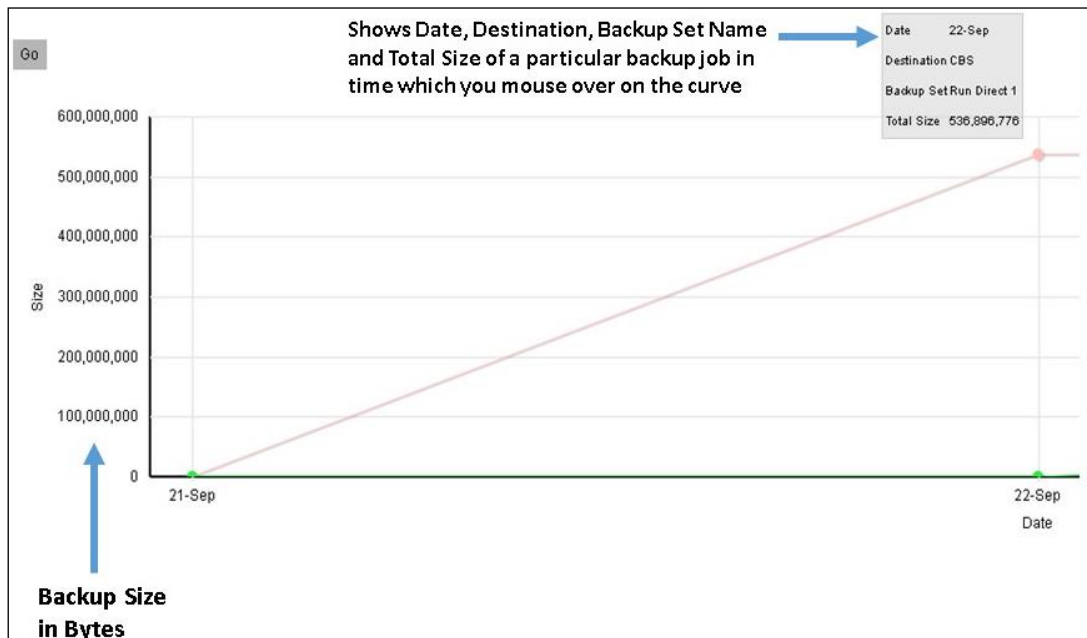
Statistics for This User

Select a destination
AhsayCBS (-)

Select a backup set
All backup sets

Period
This Week

Go



Summary Tab



User Profile
Backup Set
Settings
Report
Statistics
Effective Policy

Usage

Summary

Summary for This User

* Unit: Compressed Size / Uncompressed Size [Ratio] [Total No. of Files]
** Unit: Compressed Size [Total No. of Files]
(^) Backup Set completely migrated from v6

Backup Set	Destination	Data Area*
 T1(1501661450981)	 AhsayCBS	0 / 0 [0%] [0]

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

Data Area

Data Area**
0 / 0 [0%] [0]
1.18G / 1.17G [0%] [149]
3.98M / 4.98M [20%] [12]
181.01M / 1.24G [86%] [703]

Format:

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

Example: 3.98M / 4.98M [20%] [12]

The data interpreted as the backup set has 12 files in the data area; the files compressed and uncompressed sizes are 3.98M and 4.98M respectively; the compression ratio is 20%.

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.

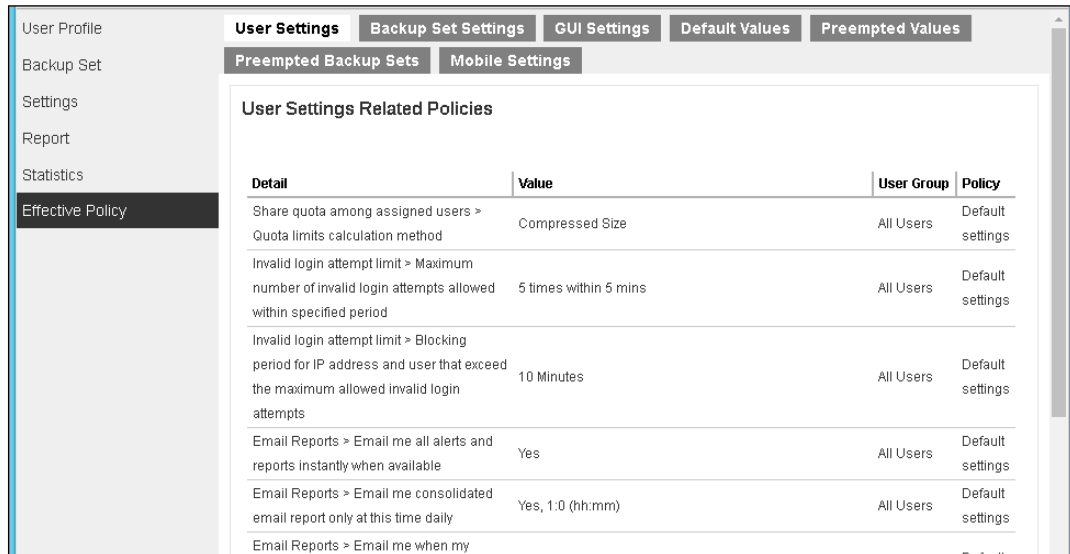
Effective Policy

The Effective Policy tab shows the details of all policies and settings which applies to the backup user account. The **Effective Policy** tab is located under **Users, Groups & Policies > Backup User**. It can be hidden by unchecking the box of **View for Effective Policy** under **Users, Groups & Policies > Policy Group > Default settings > GUI Settings**.

It is subdivided into 7 tabs, each of which is described below.

▶ User Settings Tab

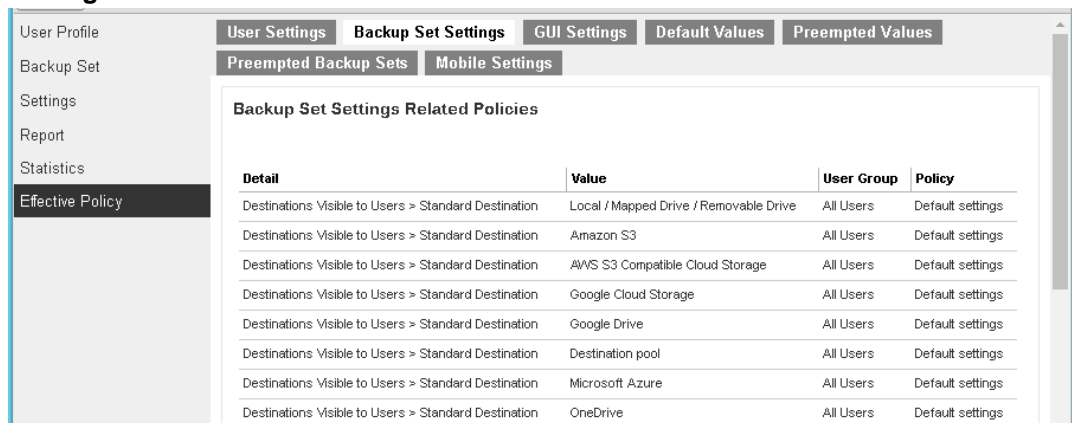
You can see the effective policy on user settings for this user on the **User Settings** tab.



Detail	Value	User Group	Policy
Share quota among assigned users > Quota limits calculation method	Compressed Size	All Users	Default settings
Invalid login attempt limit > Maximum number of invalid login attempts allowed within specified period	5 times within 5 mins	All Users	Default settings
Invalid login attempt limit > Blocking period for IP address and user that exceed the maximum allowed invalid login attempts	10 Minutes	All Users	Default settings
Email Reports > Email me all alerts and reports instantly when available	Yes	All Users	Default settings
Email Reports > Email me consolidated email report only at this time daily	Yes, 1:0 (hh:mm)	All Users	Default settings
Email Reports > Email me when my			Default

▶ Backup Set Settings Tab

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



Detail	Value	User Group	Policy
Destinations Visible to Users > Standard Destination	Local / Mapped Drive / Removable Drive	All Users	Default settings
Destinations Visible to Users > Standard Destination	Amazon S3	All Users	Default settings
Destinations Visible to Users > Standard Destination	AWS S3 Compatible Cloud Storage	All Users	Default settings
Destinations Visible to Users > Standard Destination	Google Cloud Storage	All Users	Default settings
Destinations Visible to Users > Standard Destination	Google Drive	All Users	Default settings
Destinations Visible to Users > Standard Destination	Destination pool	All Users	Default settings
Destinations Visible to Users > Standard Destination	Microsoft Azure	All Users	Default settings
Destinations Visible to Users > Standard Destination	OneDrive	All Users	Default settings

GUI Settings Tab

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

User Profile	User Settings	Backup Set Settings	GUI Settings	Default Values	Preempted Values
Backup Set	Preempted Backup Sets	Mobile Settings			
Settings					
Report					
Statistics					
Effective Policy					

GUI Settings Related Policies			
Detail	Value	User Group	Policy
Backup Sets > Add and Remove Backup Set	View=Yes	All Users	Default settings
Backup Sets > General Tab	View=Yes	All Users	Default settings
Backup Sets > General Settings - Name	View=Yes, Edit=Yes	All Users	Default settings
Backup Sets > General Settings - IBM Domino	View=Yes, Edit=Yes	All Users	Default settings
Backup Sets > General Settings - IBM Notes	View=Yes, Edit=Yes	All Users	Default settings

Default Values Tab

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

User Profile	User Settings	Backup Set Settings	GUI Settings	Default Values	Preempted Values	Preempted Backup Set
Backup Set	Mobile Settings					
Settings						
Report						
Statistics						
Effective Policy						

Default Values Related Policies		
Detail	Value	User Group
General > Name	Applied Module=FILE, Name=default-backup-set-name	All Users
General > Name	Applied Module=Cloud File, Name=default-backup-set-name	All Users
General > Name	Applied Module=Lotus Domino, Name=default-backup-set-name	All Users
General > Name	Applied Module=Lotus Notes, Name=default-backup-set-name	All Users
General > Name	Applied Module=Microsoft Exchange Server, Name=default-backup-set-name	All Users

Preempted Values Tab

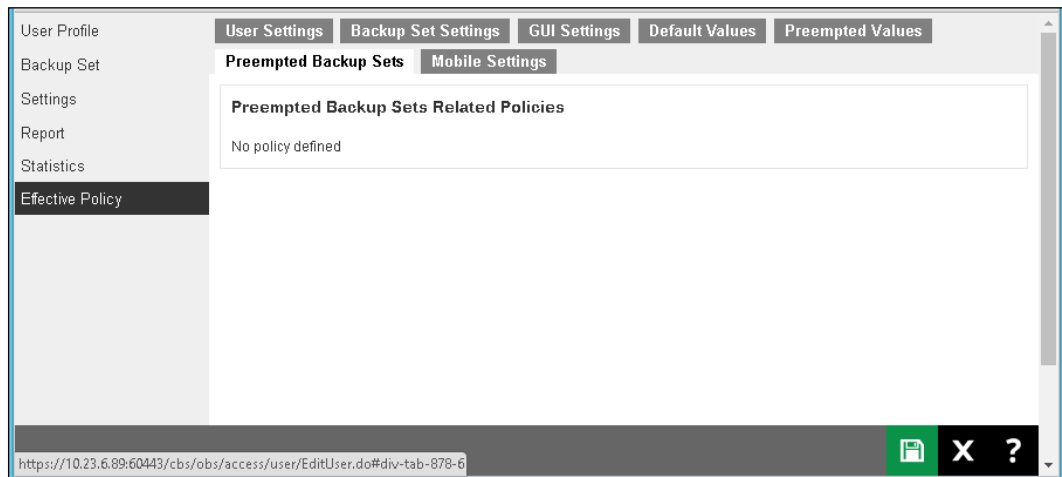
You can see the effective policy on preempted values for this user on the **Preempted Values** tab.

User Profile	User Settings	Backup Set Settings	GUI Settings	Default Values	Preempted Values
Backup Set	Preempted Backup Sets	Mobile Settings			
Settings					
Report					
Statistics					
Effective Policy					

Preempted Values Related Policies	
No policy defined	

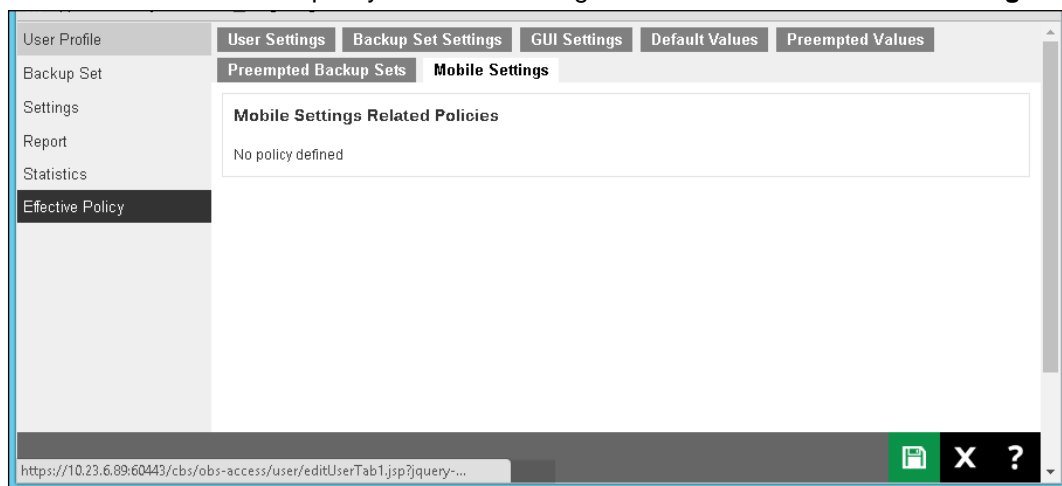
▶ Preempted Backup Sets Tab

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



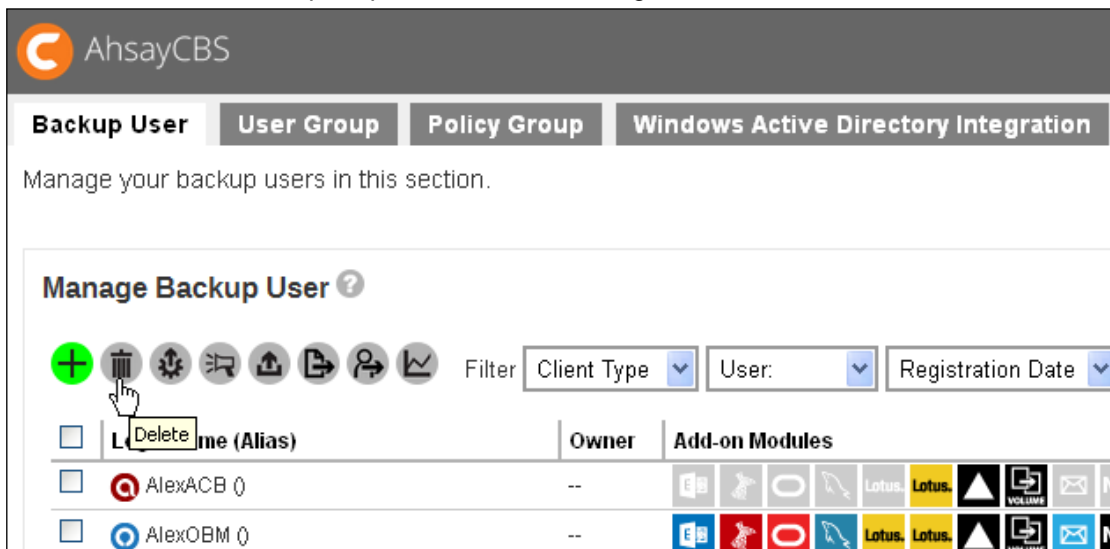
▶ Mobile Settings Tab

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



Delete Backup User

To delete an existing user, select the user you want to delete, then click the **Delete** button as shown below. You will be prompted to confirm deleting the selected user, click **OK** to confirm.



AhsayCBS

Backup User | **User Group** | **Policy Group** | **Windows Active Directory Integration**

Manage your backup users in this section.

Manage Backup User ?

Filter: Client Type | User: | Registration Date

		Owner	Add-on Modules
<input type="checkbox"/>	Delete me (Alias)		
<input type="checkbox"/>	AlexACB ()	--	Lotus Lotus
<input type="checkbox"/>	AlexOBM ()	--	Lotus Lotus

Warning

When you remove a backup user account, all the backup sets and backup data on CBS or predefined destinations, as well as the backup user profile on the AhsayCBS will be removed.

For the backup data residing on local destinations on the AhsayOBM/AhsayACB machine or on customers personal cloud storage accounts, SFTP/FTP servers will not be deleted.

Auto Update

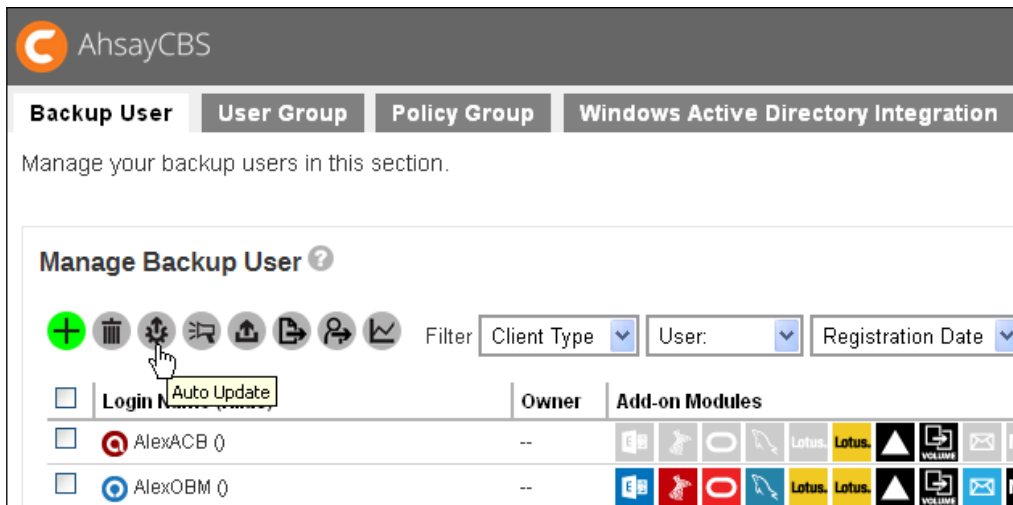
The automatic upgrading of AhsayOBM/ AhsayACB clients to the latest version is performed using the Auto Update function. To perform a successful auto upgrade of the AhsayOBM/ AhsayACB clients need to connect to the AhsayCBS backup server.

The AhsayOBM/ AhsayACB client backup machine:

- Must be powered on.
- Must be connected to the internet.
- The AhsayOBM/ AhsayACB scheduler services must be running.
- The AhsayOBM/ AhsayACB client is connecting to AhsayCBS server using the latest login credentials.
- The AhsayOBM/ AhsayACB application GUI must be closed.

For every 720 minutes or whenever the backup client service restarts (v7) or the auto update agent service restarts (v6), AhsayOBM/ AhsayACB will check with your AhsayCBS for any available updates. If any auto update instructions were found on the AhsayCBS, the update progress will be started.

To perform an auto update, select the desired user then click **Auto Update** as shown below.

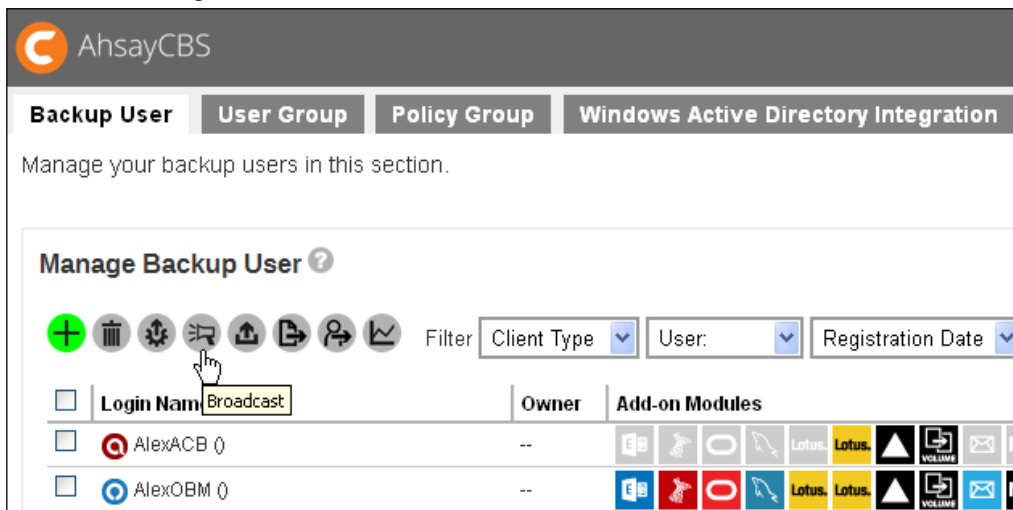


Broadcast

After you selected a list of users for broadcast, you will be able to send broadcast message to the selected users. This is useful when you need to send announcement such as server maintenance, applied latest patch or some promotion offers to your users.

To broadcast a message to users, select the desired users then click the **Broadcast** button as shown below. Edit the broadcast message then click the **Send** button at the bottom right corner to

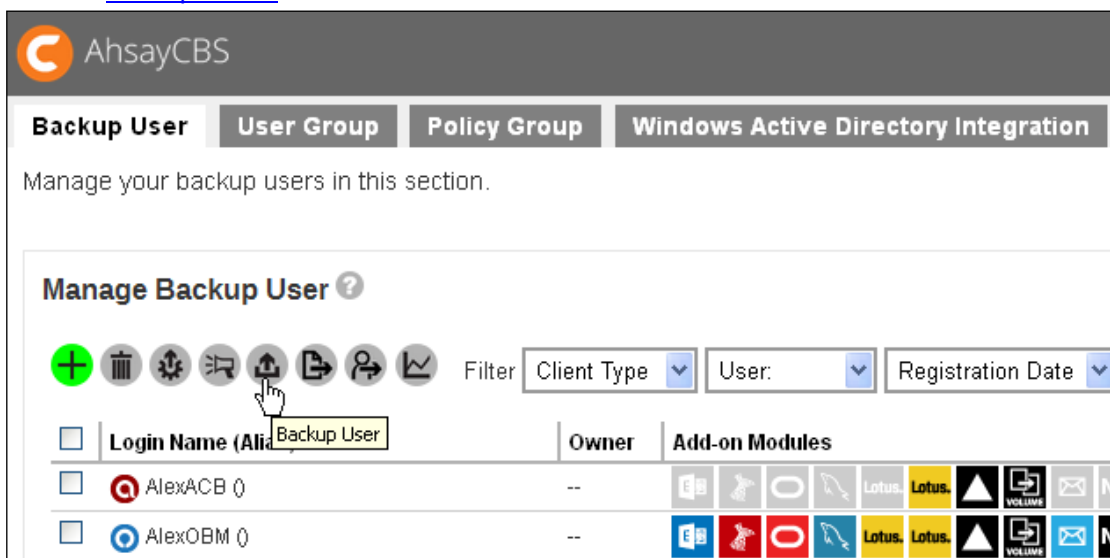
send the message.



Backup User

You can select user(s) and trigger their backup machines to run the backup set(s). Select the desired backup user then click the **Backup User** button as shown below. Select the backup set you would like to start a backup on, then click the **Run Backup** button at the bottom right corner to trigger a backup.

The backup will start shortly and you can monitor the progress using the Live Activities feature. Refer to [Backup Status](#) for further details.



Export Users' Usage Statistics to CSV File

You can export the usage of your selected user(s) to a CSV (Comma Separated Value) file. This format can be imported into spreadsheets or other program/database for further analysis or billing purpose.

To export usage of users to CSV, select the desired user then click the **Export Users' Usage Statistics to CSV** button as shown below. You will see a .csv file being downloaded.

The screenshot shows the AhsayCBS web interface. At the top, there's a navigation bar with the AhsayCBS logo and four tabs: 'Backup User', 'User Group', 'Policy Group', and 'Windows Active Directory Integration'. Below the tabs, a message says 'Manage your backup users in this section.' The main section is titled 'Manage Backup User' with a help icon. It contains a toolbar with icons for adding, deleting, refreshing, pausing, uploading, exporting, and a chart. The 'Export' icon (a document with an arrow) is highlighted by a mouse cursor. To the right of the toolbar are filter dropdowns for 'Client Type', 'User', and 'Registration Date'. Below the toolbar is a table with two columns: 'Login Name (Alias)' and 'Add-on Modules'. The table lists two users: 'AlexACB ()' and 'AlexOBM ()'. A context menu is open over the 'AlexACB ()' row, showing the option 'Export Users' Usage Statistics to CSV'. The 'Add-on Modules' column contains various icons, including Lotus and Volume icons.

AhsayCBS

Backup User User Group Policy Group Windows Active Directory Integration

Manage your backup users in this section.

Manage Backup User ?

+ - Refresh Pause Upload Export Chart Filter Client Type User: Registration Date

☐ Login Name (Alias) Export Users' Usage Statistics to CSV Add-on Modules

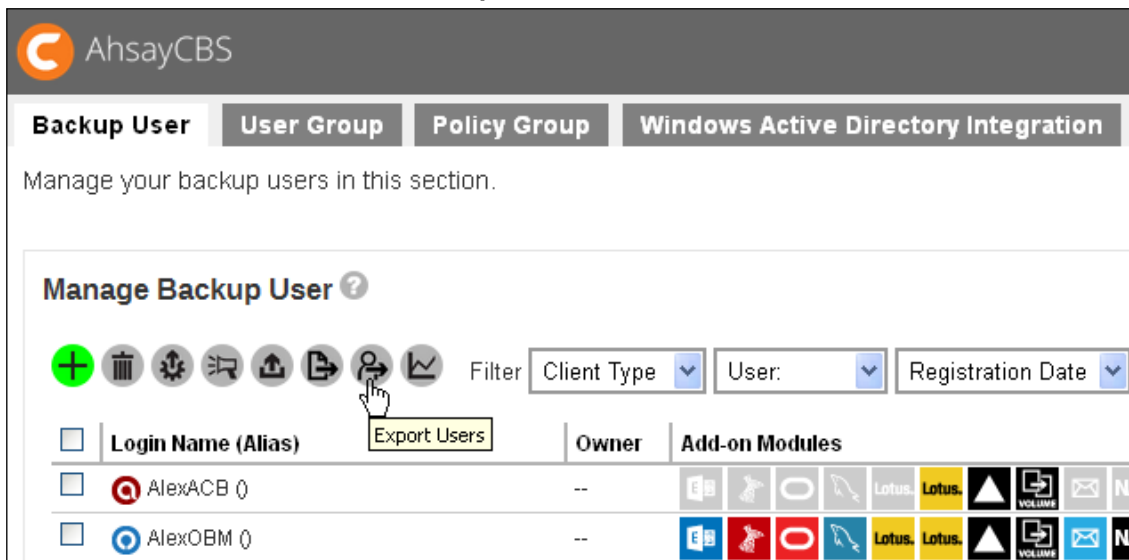
<input type="checkbox"/> AlexACB ()	--	Lotus Lotus
<input type="checkbox"/> AlexOBM ()	--	Lotus Lotus

Export Users

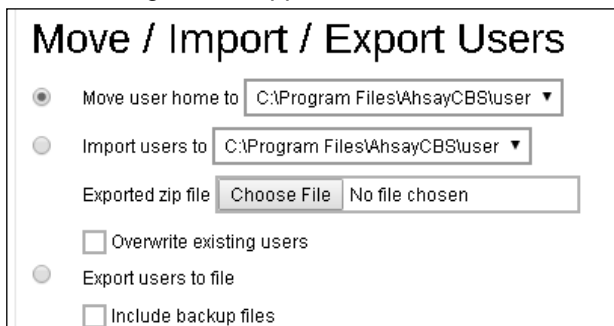
This function handles export users to a file, import users from a file, and export user's home directory to another user home.

You may use this function to migrate a user from an AhsayCBS to another AhsayCBS, migrate a user from the user home to another user home on the same machine. This function is limited to system user with admin role.

Select the desired user then click the **Export Users** button as shown below.



The following screen appears:



- **Move user home to** – Export user from a user home to another user home.
- **Import users to** – Import a previous exported user zip file into the user home.
- **Export users to file** – Export user profile and backup files to a zip file format.

Note

Please schedule a time with your users when you need to migrate their user home to another user home/AhsayCBS. It is better to suspend the user, stop any running backup, and close the client interface before you perform the user export.

Since the move of a user from a user home to another user home would export the whole user profile and the backup data from a user to another user home. When moving a user account with large backup sets, it is expected to wait for a long periods. So, it is suggested to perform one user

export at a time, and during the export, please do not restart service or server. In case of power failure or server shutdown, the move user's process would fail.

Example: Case 1

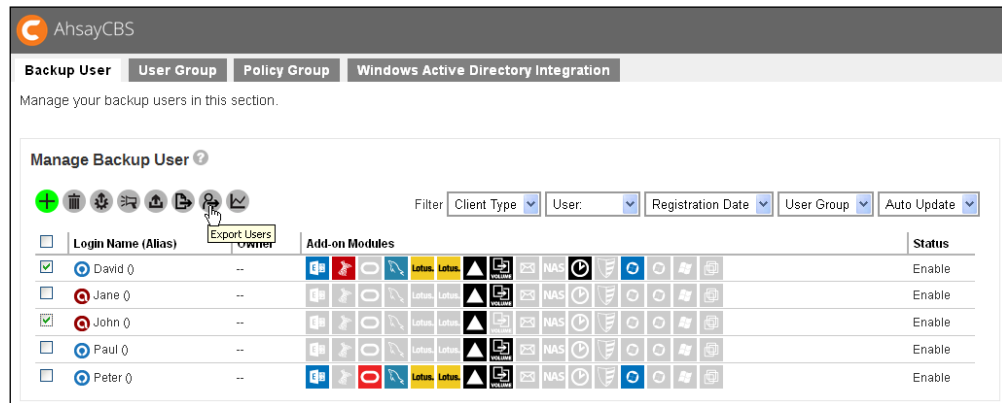
Migrate users from one user home in **D:** drive to another user home in **F:** drive within the same AhsayCBS.

Assumptions:

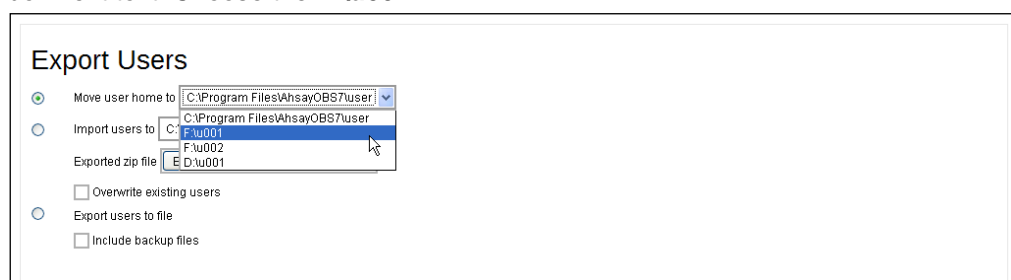
- 1. The selected users in the user homes have small amount of backup files.
- 2. These users are located in **D:\u001** . **F:\u001** is the destination user home.

Steps:

1. Login to the AhsayCBS by going to Backup/Restore > Users, Groups & Policies.
2. Select the user(s) that you need to migrate.



3. Click the **Export Users** button.
4. Make sure the radio button of **Move user home to** is turned on and select the dropdown box next to it. Choose the **F:\u001**.



5. Click the **Check (✓)** button to proceed.

Example: Case 2

Export a user (including data) from one AhsayCBS and import to another AhsayCBS.

Suggestions:

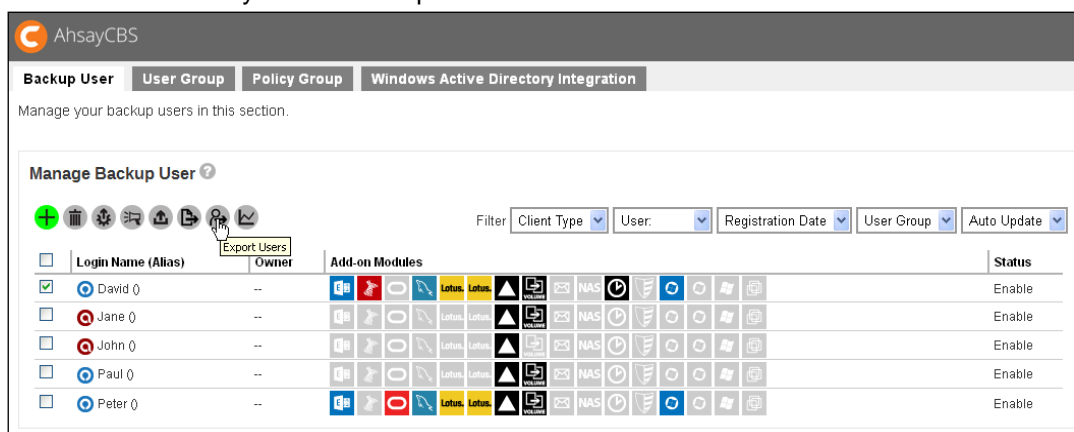
- ▶ Perform 1 user at a time.
- ▶ Suspend this user before the export.

Assumptions:

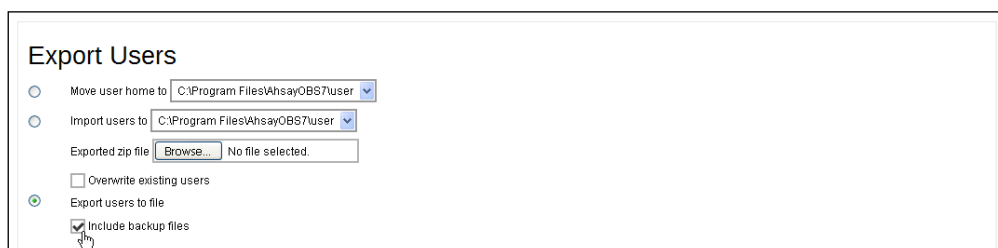
- The user that needs to be export is located in AhsayCBS1, while the destination backup server is AhsayCBS2.
- When import the user into AhsayCBS2, make sure the username does not exist in any user home(s) in AhsayCBS2.
- The user account will be removed on AhsayCBS1 to avoid duplication. This is important if these servers are under the same Redirector server group


Steps:

1. Login to the AhsayCBS1 by going to Backup/Restore > Users, Groups & Policies.
2. Select the user that you need to export.

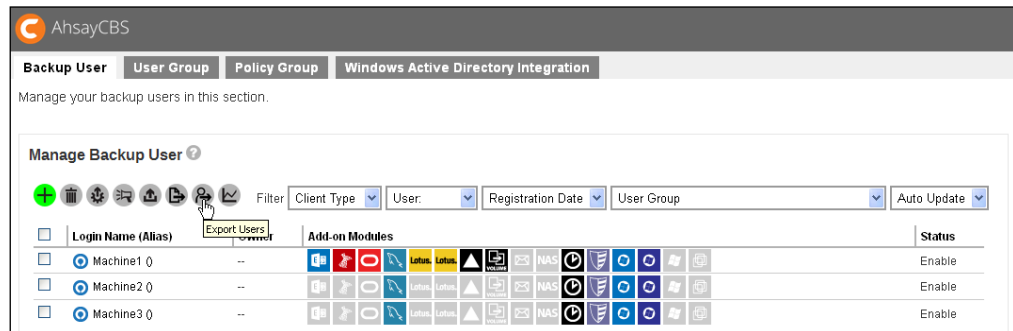


- Click the **Export Users** button.
- Click on the **Export users to file** radio button and click on the **Included backup files** check box.



- Click on  to proceed. The system will prompt you to save the file (users.zip) in your local machine. You need to have enough disk space to save the zip file. If the user account has large backup sets, it is expected to wait for a long period of time.

6. Login to the AhsayCBS by going to Backup/Restore > Users, Groups & Policies.
7. Click the **Export Users** button.



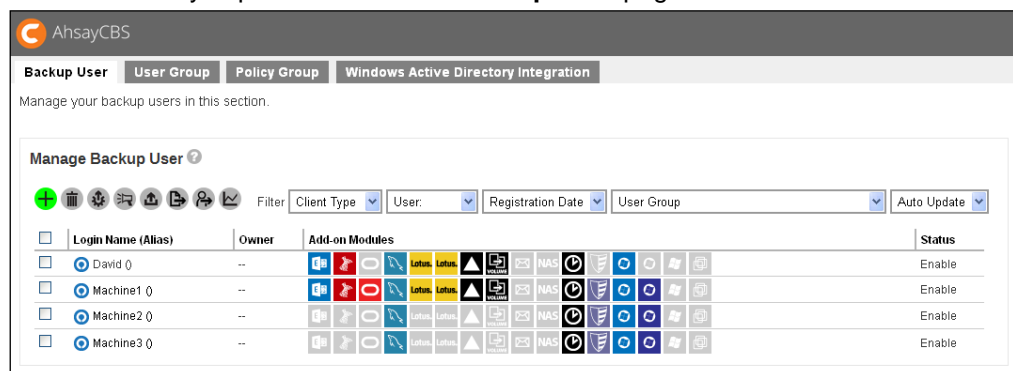
8. Click on the **Import users to** radio button and select the destination user home on the AhsayCBS2.



9. Click on the **Browse** button under the **Import users to** radio button. Select your previous exported zip file (users.zip). If the overwrite option is selected, the user account on the AhsayCBS2 which has the same user name in the users.zip will be overwritten.



10. Check the newly imported user in the **Backup User** page.



Rebuild Storage Statistics

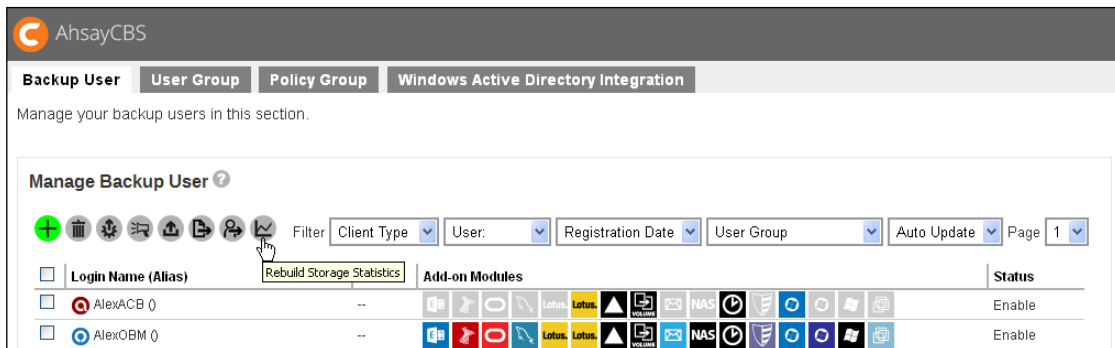
This option can only rebuild legacy backup sets created in version 6, which have not been migrated to v7 block storage format. The option is used to enhance the accuracy of storage statistics for the backup set created in version 6.

The time taken to complete a rebuild depends on a number of factors such as the number of files / folders in the backup set(s), the number of backup sets, the hardware specifications of your AhsayCBS server such as the disk I/O and CPU performance, and if there are other resource intensive jobs running.

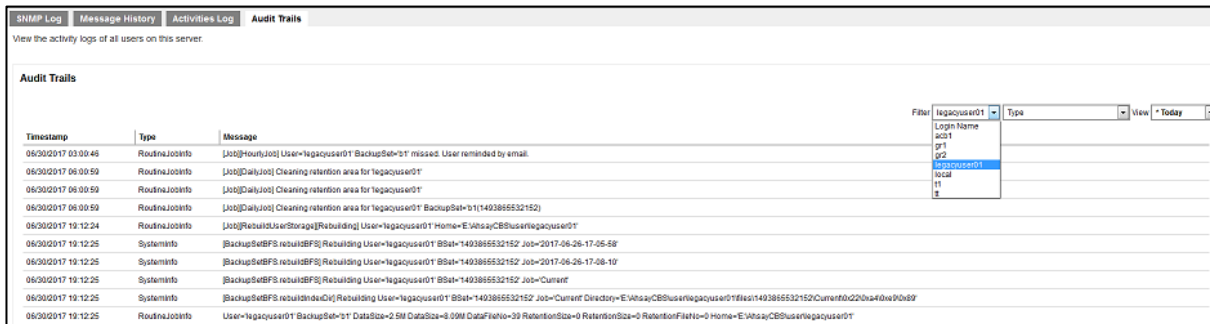
Note

Note that a backup set rebuild can only be started when there is no backup job running (of the corresponding backup set), and vice versa.

To rebuild legacy backup set, click the **Rebuild Storage Statistics** button as shown below.



To check the progress or status of the Rebuild Storage Statistics job, go to [Monitoring]> [Administration Logs]>[Audit Trails], use the Filter “login Name” and select the backup user.

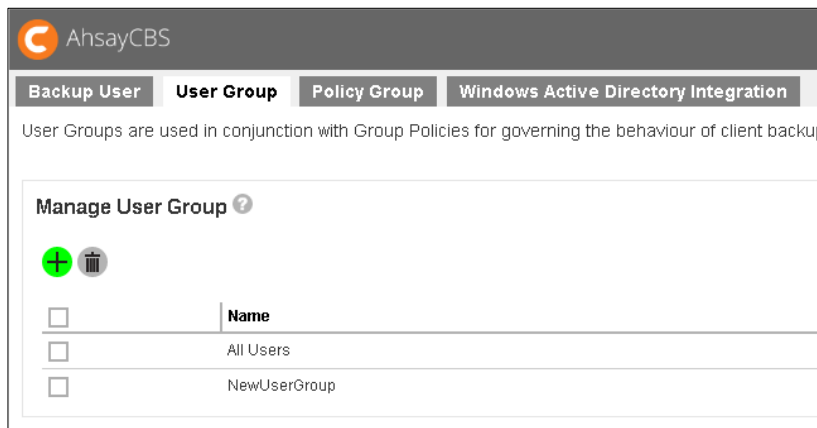


Timestamp	Type	Message
06/09/2017 03:00:46	RoutineJobInfo	[Job]HourlyJob User=legacyuser01 BackupSet=31 missed. User reminded by email.
06/09/2017 06:00:59	RoutineJobInfo	[Job]DailyJob Cleaning retention area for legacyuser01
06/09/2017 06:00:59	RoutineJobInfo	[Job]DailyJob Cleaning retention area for legacyuser01
06/09/2017 06:00:59	RoutineJobInfo	[Job]DailyJob Cleaning retention area for legacyuser01 BackupSet=31(1493865532152)
06/09/2017 12:12:24	RoutineJobInfo	[Job]RebuildUserStorage[Rebuilding] User=legacyuser01 Home=E:\AhsayCBS\user\legacyuser01
06/09/2017 12:12:25	SystemInfo	[BackupSetBFS rebuildBFS]Rebuilding User=legacyuser01 BSet=1493865532152 Job=2017-06-26-17-06-58
06/09/2017 12:12:25	SystemInfo	[BackupSetBFS rebuildBFS]Rebuilding User=legacyuser01 BSet=1493865532152 Job=2017-06-26-17-06-10
06/09/2017 12:12:25	SystemInfo	[BackupSetBFS rebuildBFS]Rebuilding User=legacyuser01 BSet=1493865532152 Job=Current
06/09/2017 12:12:25	SystemInfo	[BackupSetBFS rebuildBFS]Rebuilding User=legacyuser01 BSet=1493865532152 Job=Current Directory=E:\AhsayCBS\user\legacyuser01\files\1493865532152\Current\220ba40baP0b89
06/09/2017 12:12:25	RoutineJobInfo	User=legacyuser01 BackupSet=31 DataSize=2.5M DataFileNo=39 RetentionSize=0 RetentionFileNo=0 Home=E:\AhsayCBS\user\legacyuser01

Manage User Groups

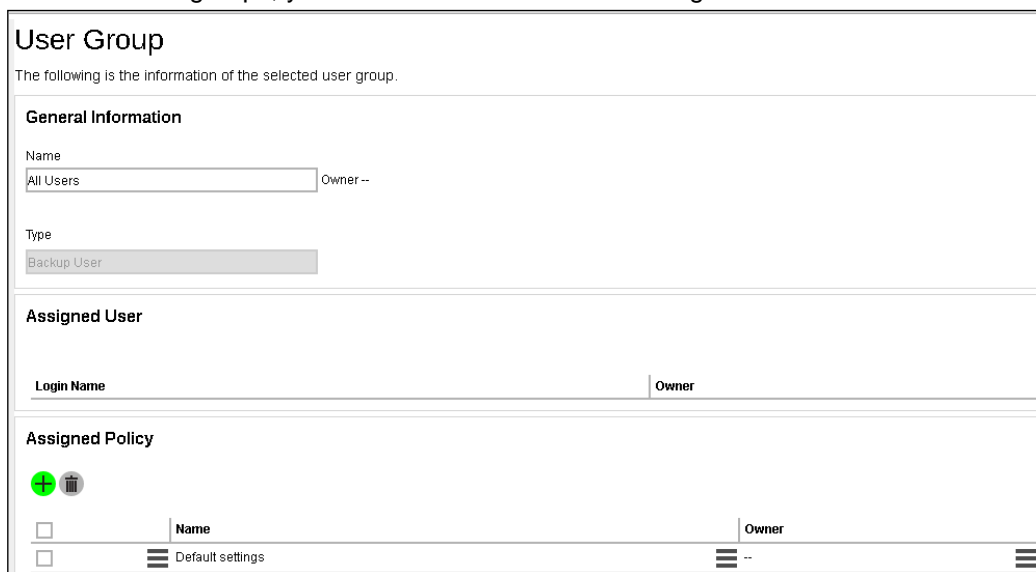
User Group is used in conjunction with Group Policies (see the next chapter [Manage Policy Groups](#) for details) for governing the behavior of client backup agent and the AhsayCBS.

The following shows the User Group tab under **Backup / Restore > Users, Groups & Policies**.



The default user group

By default, the user group named All Users has been created. All backup users will be put under the **All Users** user group by default after the user account has been created. When you click on one of the user groups, you will be able to see the followings:



- 1. **General Information** – It shows the information of the user group, ownership, etc.
- 2. **Assigned User** – A list of users assigned to the group.
- 3. **Assigned Policy** – It shows a list of assigned policies to the user group. As the order of the policy would affect the actual applied to the user group, i.e. the policy on the top would probably overwrite the policy at the bottom of the list. If you want to arrange the order of the policies, you can simply drag the policy up and down.

For the **All Users** user group, it has a predefined policy called **Default settings**.

To add backup user to a user group

Backup user cannot be added to a user group in this menu. To do so, you can either:

- Add a user to a user group when you first create the user account, refer to [Create a New Backup User](#) for further instructions.

-OR-


- You can add user a to a user group after the account has been created, refer to [User Profile](#) for further instructions.

To add a new policy group to a user group

Follow the steps below to either add an additional policy group to the default user group (All Users) **OR** add a policy group to a newly created user group.

1. Click the user group which you wish to add a policy group to.




	Name
<input type="checkbox"/>	All Users
<input type="checkbox"/>	NewUserGroup

2. Click the  button under the **Assigned Policy** section.

	Name
<input type="checkbox"/>	Default settings

3. You will see a list of policy groups available for selection.

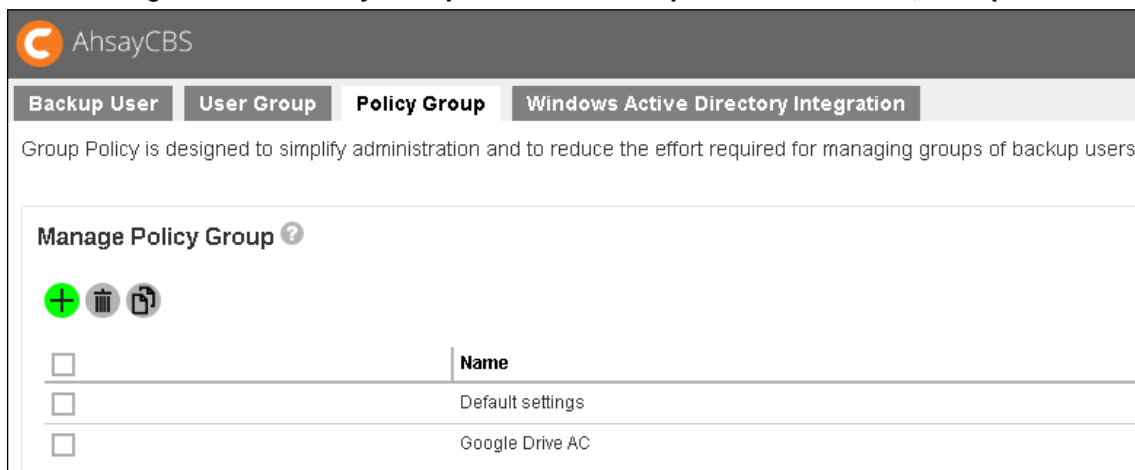
	Name	Owner
<input type="checkbox"/>	Google Drive AC	--
<input type="checkbox"/>	Policy Group 2	--

4. Select the desired policy group to add, then click the  button, and  button then the  button at the bottom of the page to confirm.

Manage Policy Groups

Policy Group is designed to simplify administration and to reduce the effort required for managing groups of backup users, e.g. security settings and backup set settings. It allows administrator to tailor features and services for different user groups. On a fresh AhsayCBS installation, there is a **Default settings** policy group and it is assigned to the **All users** user group.

The following shows the **Policy Group** tab under **Backup / Restore > Users, Groups & Policies**.



The screenshot shows the AhsayCBS web interface. At the top, there's a navigation bar with the AhsayCBS logo and four tabs: 'Backup User', 'User Group', 'Policy Group' (which is selected), and 'Windows Active Directory Integration'. Below the tabs, a descriptive text states: 'Group Policy is designed to simplify administration and to reduce the effort required for managing groups of backup users,'. The main section is titled 'Manage Policy Group' with a help icon. It contains three icons: a green plus sign, a trash can, and a document with a plus sign. Below these icons is a table with two columns: a checkbox column and a 'Name' column. The table lists two policy groups: 'Default settings' and 'Google Drive AC'.

<input type="checkbox"/>	Name
<input type="checkbox"/>	Default settings
<input type="checkbox"/>	Google Drive AC

Warning


As all the default settings are stored inside this policy group, if you change the settings in this policy group, it would affect all users in your AhsayCBS.

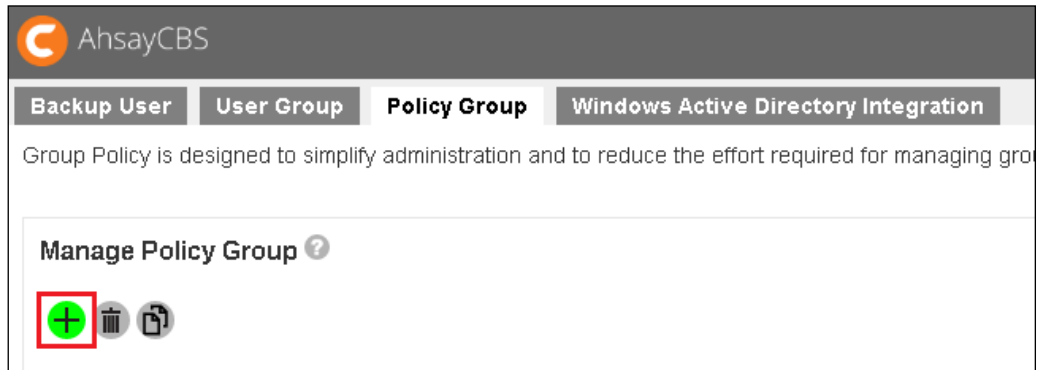
In case you need to work on the policy settings for a group of user base on the default policy group settings, you can consider the followings:

- 1. Duplicate the **Default settings** policy group. Refer to the steps in [To duplicate a policy group](#) for details.
- 2. Create a user group for your selected users and apply the duplicated policy group to this new user group. Refer to the steps in [To create a new policy group](#) for details.

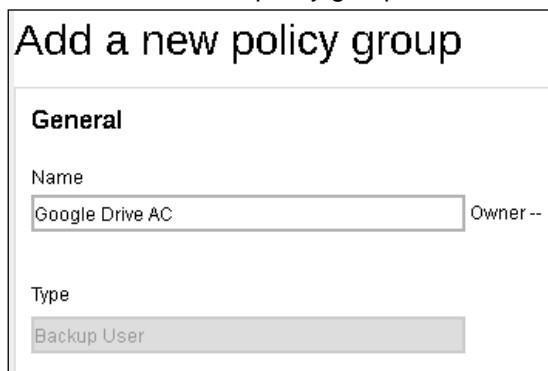
To create a new policy group


Follow the steps below to create a new policy group.

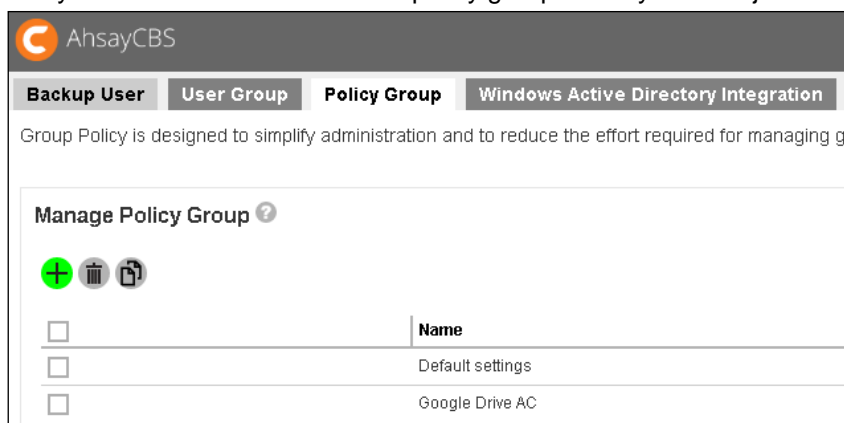
1. Click the  button under the **Manage Policy Group** section.



2. Enter a name for the policy group.



3. Click the  button and then the  button at the bottom of the page to confirm.
4. Go back to the **Policy Group** tab under **Backup / Restore > Users, Groups & Policies**, and you should be able to see the policy group name you have just created.

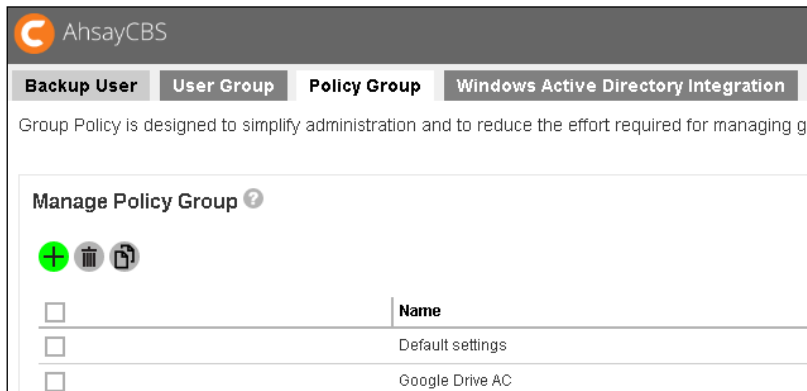


5. Click on the policy group for configuration. The configuration items are subdivided into 8 sections, each of which is described in the [To configure a policy group](#) section below.

To modify a policy group

After a policy group has been created, you can modify its settings by following the steps below.

1. Navigate to the **Policy Group** tab under **Backup / Restore > Users, Groups & Policies**.

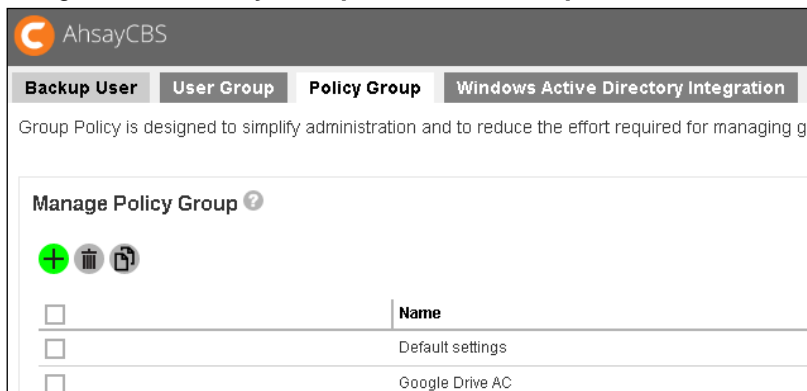



2. Click on the policy group you wish to modify, then follow the steps in the [To configure a policy group](#) section below for further instructions on modifying the configurations.

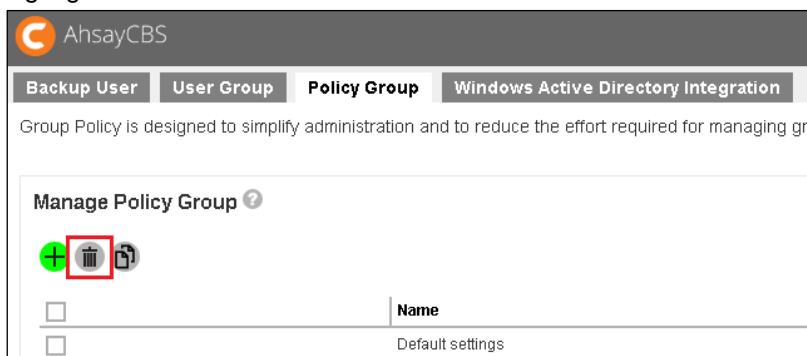
To delete a policy group


Follow the steps below to delete a policy group.

1. Navigate to the **Policy Group** tab under **Backup / Restore > Users, Groups & Policies**.



2. Mark the checkbox of the policy group you wish to delete, then click on the  button as highlighted in the screen shot below.

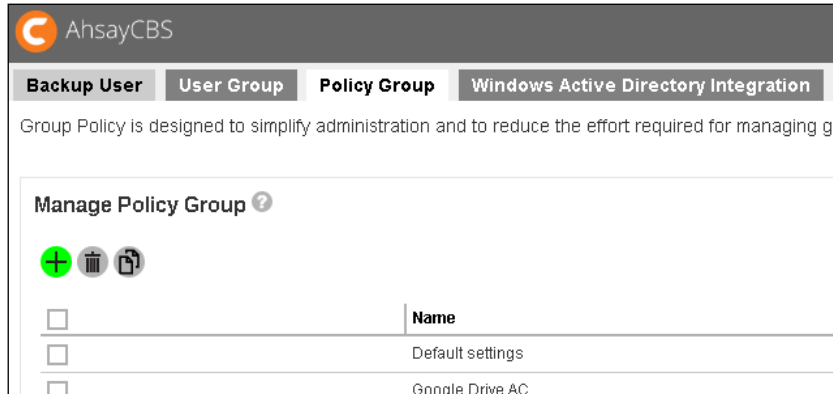


3. Click the  button at the bottom of the page to confirm.

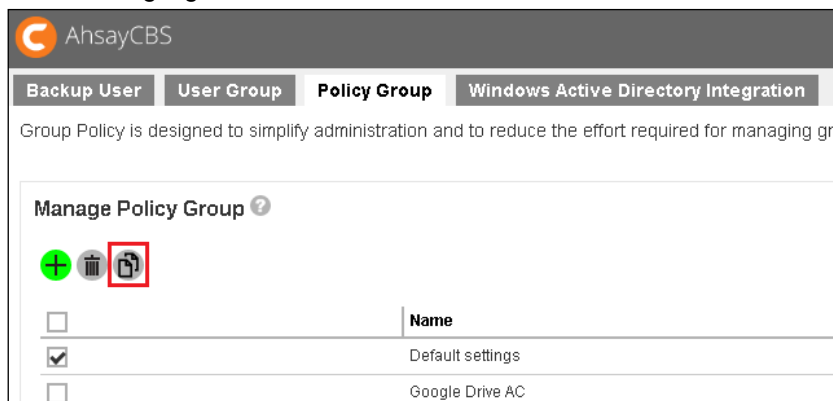
To duplicate a policy group

Follow the steps below to duplicate an existing policy group. This is useful when you wish to apply the same configurations from a policy group to a group of users.

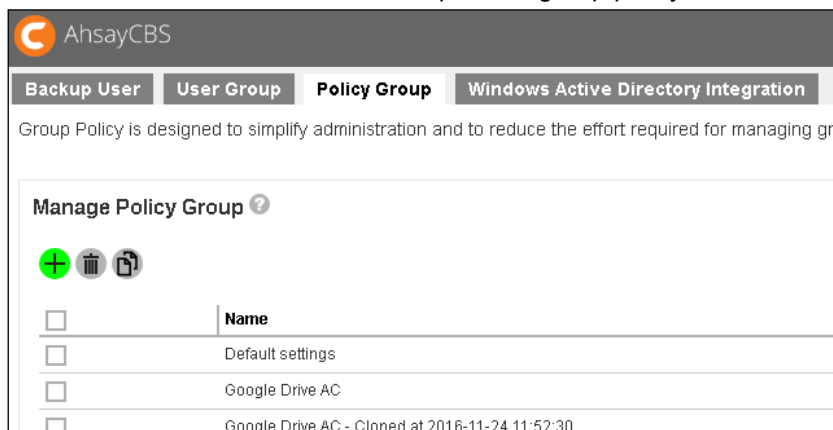
1. Navigate to the **Policy Group** tab under **Backup / Restore > Users, Groups & Policies**.



2. Mark the checkbox of the policy group you wish to duplicate, then click on the button as highlighted in the screen shot below.



3. You will immediately see the policy group is being duplicated, with the suffix “**Clone at YYYY-MM-DD HH:MM:SS**” in the duplicated group policy’s name.



4. If you need to configure the duplicated policy group, follow the steps in the [To configure a policy group](#) section below for details.

To configure a policy group



General

This is the general settings of the policy group page, and the user group is a list of user group which is a list of user groups which has applied this policy.

Name and Owner	
Name	Owner --
Default settings	
Type	Backup User

User Group	
Name	Owner
All Users	--

- **Name** – the name of the policy group. The name is configurable.
- **Type** – predefined as Backup User
- **User Group** – displays the user group(s) with this policy group applied.

If you have changed the policy group name, click the  button then the  button at the bottom of the page to confirm.

To add backup user to a policy group

Backup users cannot be added to a policy group directly in this setting menu. To do so, you have to:

Step 1: Add the user to a user group first by following the steps in either case below:

- Add a user to a user group when you first create the user account, refer to [Create a New Backup User](#) for further instructions.

-OR-

- You can add user a to a user group after the account has been created, refer to [User Profile](#) for further instructions.

Step 2: Assign the desired policy group to the user group by following the steps in [To add a new policy group to a user group](#).

User Settings

This section allows you to manage user settings such as Quota, Invalid Login Attempt Limit, Password, Email Reports, Encryption Key, Client Host limit, Run Direct VM Limit and Advertisement.

Quota

Administrators can set a group storage quota to a user group.

Quota

Quota limits calculation method
☒ Compressed Size
☐ Uncompressed Size

☒ Share quota among assigned users
Shared storage quota
 Gbytes

Maximum percentage of shared size for each user
 %

The following items can be set:

- **Quota limits calculation method** - this defines if the quota limit is calculated by Compressed Size or Uncompressed Size.
- **Share quota among assigned users** – when this feature is enabled, the set storage quota will be shared by all users within the user group and you can configure the following two settings.
 - ❖ **Share storage quota** – this defines the storage quota allowed for the user group.
 - ❖ **Maximum percentage of shared size for each user** - defines the maximum percentage of shared storage allowed for each user. For example, setting 50% means all users in the user group can occupy up to 50% of the assigned storage quota. If 100GB is the assigned storage, each user can store up to 50GB of the assigned storage quota. If the value is set to 100%, all users can fully utilize the storage until the assigned storage quota is full.

Important

The shared storage quota is allocated to users on a first-come-first-serve basis. If the shared storage quota remains unchanged when the number of backup user grows or there is a change on the maximum percentage of shared size for each user, it may cause issue like the one mentioned below.

Example

Settings: The shared storage quota is 100GB shared by 2 users with a maximum percentage of 50% of each user. In other words, each user is entitled to a maximum of 50GB of storage.


Current usage: Now, one of the users has used up 45GB of capacity

New setting: The maximum percentage of shared size for each user has adjusted to 30%.

Impact: In that case, that backup user has exceeded the new maximum percentage allowed for each user, which is 30GB. The backed up data will remain on the backup destination but that user will no longer be allowed to perform any new backup.

Best Practice: System administrator should consider upgrading the shared storage quota as the number of backup users in the user group grows or there is a change on the maximum percentage of shared size for each user

Invalid Login Attempt Limit

This setting allows administrator to apply conditions for the number of invalid login attempt allowed to the user group. The following conditions can be set after you turned on the  switch on the right.

Invalid login attempt limit

Maximum number of invalid login attempts allowed within specified period

Specified period (minutes)

Blocking period for IP address and user that exceed the maximum allowed invalid login attempts

☒ Minutes

☐ hours

☐ Forever

- **Maximum number of invalid login attempts allowed within specified period** – this defines the maximum number of attempt allowed for invalid login within the set period time. The backup user account will be blocked after the set number of invalid login attempts have been reached.
- **Specified period (minutes)** – this defines the period of time during which the set maximum number of invalid login attempt is allowed before the invalid login counter resets.
- **Blocking period for IP address and user that exceed the maximum allowed invalid login attempts** – this defines the period of time during when the IP address and user that has exceeded the invalid login attempts will be blocked from logging in again.


Example:

If the following settings are applied:

- **Maximum number of invalid login attempts allowed** - 3
- **Specific period** – 5 minutes
- **Blocking period for IP address and user that exceed the maximum allowed invalid login attempts** – 10 minutes

That means backup user can only enter a maximum of 3 times of invalid login within 5 minutes since the first attempt. If invalid login is made for the 4th time within that 5 minutes duration, the user account will be blocked for 10 minutes.


Password

This setting allows administrator to set up the password policy. The following items can be set after you turned on the  switch on the right.

Password
Password Age
☐ Never expire
☒ 90 days
☒ Enforce password history (30 passwords remembered)
Complexity Requirements
☒ Default
☒ Numbers (0-9) ☒ Uppercase ☒ Lowercase ☒ Minimum length 6
☒ Special characters (?!~\$%&*+.=:;'",.)
☐ Custom (Regular expression)

- **Password Age** – defines the period of time when the login password of a backup user account expires. When the set period of time is reached, backup users will have to change their passwords before they can continue using the CBS.
- **Enforce password history (30 passwords remembered)** – when this feature is enabled, the last 30 login passwords of each user are recorded and cannot be used again when users are changing a new password.
- **Complexity Requirements** – you can customize the complexity requirements for the password to provide better protection for the users. Under the **Default** option, the selected item(s) will be the mandatory element(s) when backup users create their passwords.

Email Reports

This menu allows administrator to select what email reports to be sent to the users of a user group. Turn on the  switch on the right then select the desired email report(s) to send. By default, no email report is selected after you turned on this feature.

The table below lists out all types of email reports, together with explanation on what the email report is about, when it will be sent, what action backup user should take, and sample screen shot of the email and report. You can also add email recipients in the **Bcc reports to email** section so that the email reports will be sent to them as well.

Note

If the PDF report is too large to be sent through email (>20MB), the PDF attached in the email will only contains the first 100 pages of original backup report, with the 101st page showing "**Report truncated because it is too big to be sent in email**". Truncating the attached large report can avoid blocking from some SMTP server caused by email too big size and help save the capacity of client email box.

If the attached PDF report is truncated, the email will contain the links which point to the full PDF report download page.

Email Reports

☐ Backup Report

☐ Restore Report

☐ Missed Schedule Backup Report

☐ Settings Change Report

☐ Windows AD Auth Failure Report

☐ Backup Quota Reminder / Alert
Send backup quota reminder to user if the backup quota is over %



☐ Trial User Reminder / Alert
Send trial user reminder to user if the reminding day(s) is less than

☐ Welcome email

☐ Email me consolidated email report only at this time daily
 : (hh:mm)

☐ Email me inactive backup report when my backup set hasn't run for this number of days

Bcc reports to email

<input type="checkbox"/>	Name	Email
--------------------------	------	-------

Backup Report	
What is this email about?	When will you receive it?
A full backup report in PDF format, showing the Backup Job Summary (backup size, backup source and destination, etc.), Backup	Backup Report is generated and sent to backup user every 15 mins (every :00, :15, :30 and :45 of an hour)

Logs, Backup Set Settings, Backup Files, etc.)	*Depending on the backup size and backup finish time, the actual report sending time may be longer than 15 mins.
--	--

What action should you take?

Download the backup report as attached with the email

Email / Report Sample

Email sample:



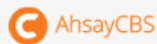
Dear steven.tse@ahsay.com,

Please download the attachment "DailyUserReport.html" to view your consolidated Daily User Report for 11/24/2016. **58 error(s)** and **83 issue(s)** were found by the system. Please review and fix them as soon as possible.

Backup Job

User	Backup Set	Backup Job	Report
steven	K Drive Backup (1479792751514)	2016-11-24-10-24-33	Download
steven	K Drive Backup (1479792751514)	2016-11-24-12-45-00	Download
steven	K Drive Backup (1479792751514)	2016-11-24-18-15-00	Download

Report sample:



Full Backup report

Backup Job Summary

User	stevan
Backup Set	K Drive Backup (1479792751514)
Data Size	940.28M
RetentionSize	68.26M
Backup Job	2016-11-24-10-24-33
Destination	GoogleDrive-1 (Google Drive)
Job Status	OK
Start - End	11/24/2016 10:24:33 - 11/24/2016 10:25:46
IP Address	192.168.7.105
New Files *	3 (11.3M)
New Directories	0
New Links	0
Updated Files *	3 (12.2M)
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	\\LAUREL\Departments\Customer Services\Common\KMT\Steven
Backup Schedule	[Computer Names STEVEN-TSE][Daily Schedules [Names Daily-1, Times 10:15, Types , Durations -1, Run Retention Policy: false][Weekly Schedules [Names Weekly-1, Times 12:45, Sun: false, Mon: true, Tue: true, Wed: true, Thu: true, Fri: true, Sat: false, Types , Durations -1, Run Retention Policy: false][Monthly Schedules][Custom Schedules]
Continuous Data Protection	[Enabled: false]
In-File Delta	[Enabled: true, Default Types I, Block Size: -1, Minimum delta file size = 26214400, Maximum number of delta = 100, Maximum delta ratio = 50, Weekly variations: [I, Monthly Variations: [I, Day: 0, Criteria: Friday, Occurrences: First]
Retention Policy	[Types SIMPLE, Period: 7, Units: DAYS]
Command Line Tool	
Reminder	Log Off Reminder Computer Names STEVEN-TSE, Offline Backup Reminder Computer Names , Tolerance period: 1 Days 0 hours
Bandwidth Control	[Enabled: false, Mode: independent, Bandwidth Control:]
Others	Remove Temporary Files: true, Follow Links: true, Volume Shadow Copy: true, File Permissions: true, Compression Type: GzipBestSpeedCompression

Backup Logs

No.	Type	Timestamp	Log
1	start	2016/11/24 10:24:33	Start [Windows 7 (STEVEN-TSE), AhsayOBM v7.9.0.0]
2	info	2016/11/24 10:24:33	Saving encrypted backup set encryption keys to server...
3	info	2016/11/24 10:24:33	Using Temporary Directory C:\Users\stevan.tse\temp\1479792751514\GDrive\1479792876141
4	info	2016/11/24 10:24:33	Start running pre-commands
5	info	2016/11/24 10:24:33	Finished running pre-commands
6	info	2016/11/24 10:25:45	Start running post-commands
7	info	2016/11/24 10:25:45	Finished running post-commands

Backup Files

No.	Type	Dirs/Files	Size	Last Modified
1	new	\\LAUREL\Departments\Customer Services\Common\KMT\Steven\AhsayCBS\AhsayCBS Administrator's Guide v7\screen shot\User setting - Run Direct VM Limit.PNG	2k / 2k (14%)	11/23/2016 10:18
2	upd	\\LAUREL\Departments\Customer Services\Common\KMT\Steven\AhsayCBS\AhsayCBS Administrator's Guide v7\Side_ebs_admin_20161123.doc	106 / 162 (34%)	11/24/2016 09:19
3	new	\\LAUREL\Departments\Customer Services\Common\KMT\Steven\AhsayCBS\AhsayCBS Administrator's Guide v7\Side_ebs_admin_20161124.doc	106 / 162 (34%)	11/24/2016 09:49
4	upd	\\LAUREL\Departments\Customer Services\Common\KMT\Steven\AhsayCBS\AhsayCBS Administrator's Guide v7\guide_ebs_admin_20161123.doc	11.31M / 13.75M (17%)	11/23/2016 19:11
5	upd	\\LAUREL\Departments\Customer Services\Common\KMT\Steven\AhsayCBS\AhsayCBS Administrator's Guide v7\screen shot\Thumbs.db	907k / 1.02M (12%)	11/23/2016 10:18
6	new	\\LAUREL\Departments\Customer Services\Common\KMT\Steven\AhsayCBS\AhsayCBS Administrator's Guide v7\guide_ebs_admin_20161124.doc	11.31M / 13.76M (17%)	11/24/2016 09:53

Restore Report																	
What is this email about?	When will you receive it?																
A full report in PDF format, showing the Restore Job Summary, Restore Logs and Restore Files	Restore Report is generated and sent to backup user every 15 mins (every :00, :15, :30 and :45 of an hour) *Depending on the restore size and restore finish time, the actual report sending time may be longer than 15 mins.																
What action should you take?																	
Download the restore report as attached with the email																	
Email / Report Sample																	
<p>Email sample:</p> <div>  <p>Dear steven,</p> <p>Here is the summary of the restore job "2016-11-22-16-35-51". Full restore report is also attached for your reference.</p> <p>Restore Job Summary</p> <table> <tr> <td>User</td><td>steven</td></tr> <tr> <td>Backup Set</td><td>K Drive Backup</td></tr> <tr> <td>Restore Job</td><td>2016-11-22-16-35-51</td></tr> <tr> <td>Job Status</td><td>OK</td></tr> <tr> <td>Restore Time</td><td>11/22/2016 16:35:51 - 11/22/2016 16:38:18</td></tr> <tr> <td>IP Address</td><td>192.168.7.105</td></tr> <tr> <td>Destination Name</td><td>GoogleDrive-1</td></tr> <tr> <td>Restored Files</td><td>1966 (917.4M)</td></tr> </table> </div>		User	steven	Backup Set	K Drive Backup	Restore Job	2016-11-22-16-35-51	Job Status	OK	Restore Time	11/22/2016 16:35:51 - 11/22/2016 16:38:18	IP Address	192.168.7.105	Destination Name	GoogleDrive-1	Restored Files	1966 (917.4M)
User	steven																
Backup Set	K Drive Backup																
Restore Job	2016-11-22-16-35-51																
Job Status	OK																
Restore Time	11/22/2016 16:35:51 - 11/22/2016 16:38:18																
IP Address	192.168.7.105																
Destination Name	GoogleDrive-1																
Restored Files	1966 (917.4M)																

Report sample:



Full Restore Report

Restore Job Summary

User	Backup Set	Restore Job	Restore Destination	Job Status	IP Address	Restored Files *
steven	K Drive Backup (1479792751514)	2016-11-22-16-35-51	GoogleDrive-1	OK	192.168.7.105	1966 (917.4M)

* No. of files (size)

Restore Logs

No.	Type	Timestamp	Log
1	start	11/22/2016 16:35:51	Start [Windows 7 (STEVEN-TSE), AhsayGBM v7.9.0.0]
2	info	11/22/2016 16:35:52	Initializing decrypt action...
3	info	11/22/2016 16:35:52	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL"
4	info	11/22/2016 16:35:52	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments"
5	info	11/22/2016 16:35:52	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services"
6	info	11/22/2016 16:35:52	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common"
7	info	11/22/2016 16:35:52	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT"
8	info	11/22/2016 16:35:52	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT\Steven"
9	info	11/22/2016 16:35:52	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT\Steven\Ahsay ACB"
10	info	11/22/2016 16:35:52	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT\Steven\Ahsay ACB\Ahsay AC B Quick Start Guide for Mac"
11	info	11/22/2016 16:35:52	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT\Steven\Ahsay ACB\Ahsay AC B Quick Start Guide for Mac\screen shot"
12	info	11/22/2016 16:35:53	Initializing decrypt action... Completed
13	info	11/22/2016 16:35:57	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT\Steven\Ahsay ACB\Ahsay AC B Quick Start Guide for Windows"
14	info	11/22/2016 16:35:57	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT\Steven\Ahsay ACB\Ahsay AC B Quick Start Guide for Windows\screen shot"
15	info	11/22/2016 16:36:02	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT\Steven\Ahsay ACB\Ahsay AC B User Guide for Cloud File Backup & Restore"
16	info	11/22/2016 16:36:02	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT\Steven\Ahsay ACB\Ahsay AC B User Guide for Cloud File Backup & Restore\Mac"
17	info	11/22/2016 16:36:02	Creating new directory... "C:\Users\steven.tse\Desktop\LAUREL\Departments\Customer Services\Common\KMT\Steven\Ahsay ACB\Ahsay AC B User Guide for Cloud File Backup & Restore\Windows"

Missed scheduled backup reminder	
What is this email about?	When will you receive it?
<p>A reminder to alert the backup user about a scheduled backup failure.</p> <p>Any backups that are failed to start 6 hours after the scheduled backup time will be considered as missed schedule backup.</p>	<p>The report is generated and sent to backup users at the next :00 after it's classified as missed scheduled backup (6 hours after backup failure)</p>
Common causes for missed scheduled backups	
<p>The following table highlights some of the common reasons causing missed scheduled backups or scheduled backups not running according to schedule. The cause of missed backups can be related to either server side issues (AhsayCBS or Redirector) or client side issues (AhsayOBM/AhsayACB client machine setup).</p>	
Server Side Issues	
<p>The AhsayCBS service is unresponsive</p> <ul style="list-style-type: none"> ➤ License error ➤ Out of Java memory / threads ➤ Out of space on AhsayCBS user home drive ➤ AhsayCBS service is not started ➤ AhsayCBS server is powered down ➤ SSL certificate expired 	
<p>The Redirector service is unresponsive (if applicable)</p> <ul style="list-style-type: none"> ➤ License error ➤ Out of Java memory / threads ➤ AhsayCBS system password is not updated on Redirection settings ➤ AhsayCBS service is not started on the redirector machine ➤ AhsayCBS server is powered down on the redirector machine ➤ SSL certificate expired 	
<p>The time zone on the AhsayOBM/AhsayACB account user profile on AhsayCBS is set incorrectly. This will cause the scheduled backup time to run either later or earlier than the actual scheduled time but will trigger a missed backup notification.</p>	
<p>There is no backup schedule configured for the affected backup set(s) or the schedule date and/or time is incorrect.</p>	
Client Side Issues	
<p>The AhsayOBM/AhsayACB client machine was switched off, hanged or running in power saving mode.</p>	
<p>The date/time, time zone, or locale on AhsayOBM/AhsayACB client machine is set incorrectly.</p>	

A backup set and backup schedule was created on AhsayCBS but AhsayOBM/AhsayACB client was not installed on the client machine or was uninstalled.

If the AhsayOBM/AhsayACB runs on Windows machine, ensure the login credentials in the Windows User Authentication is correct or is kept updated.

What action should you take?

You may have to check for the causes for the missed scheduled backup. That could be caused by, for example, incorrect login credentials of the client backup application, Internet connection problem, time zone settings, etc.

Email / Report Sample

Email sample:




Dear steven,



Your backup job for "Backup Set Name" was missed. Please check the client software configuration to see if everything is running correctly. Below is the


User	steven	
Backup Set	Backup Set Name	
Backup Statistics	Data Area*	19068[1.15G]
	Retention Area*	18[22k]
	Backup Quota	100G
	Remaining Quota	98.85G
* Unit = No. of file[Total file size]		
Last Backup Time(Days Without Backup)	2016-07-09-20-00-00(2)	
Missed backup job	2016-07-11-20-00-00	


You are suggested to perform a backup manually for this backup set to avoid undesired data loss.backup activity of this backup set.

Sincerely
Ahsay Support Team

User settings changed alert																					
What is this email about?		When will you receive it?																			
A summary report showing the user settings that have been changed in details, with the old values and new values of the changed settings shown.		User Settings Changed Alert Report is generated and sent to backup user every 15 mins (every :00, :15, :30 and :45 of an hour)																			
What action should you take?																					
The purpose of this email is to allow user to confirm the changes that have made, and alert user for unauthorized access if they have not made those changes. In the latter case, user should change their login password and correct the settings as soon as possible.																					
Email / Report Sample																					
Email sample:																					
<div><div></div><div><p>Dear steven,</p><p>One or more of your user settings have been updated.Please confirm the information shown below is correct, and that these changes were requested by an authorized user on your contact list.</p><p>If the changes were not made by an authorized user, change your password, correct your settings and see if this happens again. If this happens again, please contact us for further investigation.</p><table><tr><td>User</td><td colspan="3">steven</td></tr><tr><td>Time Of Changes</td><td colspan="3">11/22/2016 16:40:07</td></tr><tr><td>Ip Address</td><td colspan="3">192.168.22.40</td></tr><tr><td rowspan="2">Changes</td><td>Field</td><td>Old Value</td><td>New Value</td></tr><tr><td>Contacts</td><td>" "</td><td>" [Name: Steven, Email: steven.tse@ahsay.com, Company: , Address: , Website: , Phone: , Phone: "</td></tr></table></div></div>			User	steven			Time Of Changes	11/22/2016 16:40:07			Ip Address	192.168.22.40			Changes	Field	Old Value	New Value	Contacts	" "	" [Name: Steven, Email: steven.tse@ahsay.com, Company: , Address: , Website: , Phone: , Phone: "
User	steven																				
Time Of Changes	11/22/2016 16:40:07																				
Ip Address	192.168.22.40																				
Changes	Field	Old Value	New Value																		
	Contacts	" "	" [Name: Steven, Email: steven.tse@ahsay.com, Company: , Address: , Website: , Phone: , Phone: "																		

Active Directory authentication failure report	
What is this email about?	When will you receive it?
A reminder to alert the backup user about a backup failure due to the incorrect Active Directory authentication.	Shortly after the active directory authentication failure occurred
What action should you take?	
<p>Check if the active directory authentication is properly set. If you have changed the login credentials of the machine running the client backup application, you have to alter the authentication details as well for the backup to perform. To do so, follow the steps below.</p> <ol style="list-style-type: none"> Log in to AhsayOBM/AhsayACB. Click on the Backup Sets icon. Click on the backup set you would like to alter the authentication details. Click on the General section. Modify the Password under the Windows User Authentication section. Click  to confirm the change. 	
Email / Report Sample	
<p>Email sample:</p> <div>  <p>Dear</p> <p>Windows Active Directory authentication failed at 28/11/2016 18:51:21(0). If you have changed the Windows login credentials recently, please login to backup server using the backup client with the latest password, otherwise, your Active Directory account may be locked.</p> <p>If the Active Directory user has already been locked, please contact your system administrator to unlock the account.</p> <p>Sincerely Ahsay Support Team</p> </div>	

Backup Quota Reminder / Alert	
What is this email about?	When will you receive it?
<p>A reminder to alert backup users about the backup quota has exceeded the set percentage. User can configure the percentage where the reminder/alert email is triggered when it is reached.</p> <p>By default, this percentage is preset as 80% when this feature is enabled.</p>	<p>The backup quota reminder / alert email is generated and sent to backup user at 6:00am daily.</p>
What action should you take?	
<p>The backup quota is going to exceed its storage quota. Contact your backup service provider to increase the capacity. Alternatively, consider cleaning up the existing backup sets that you are no longer using, or reviewing the retention policy.</p>	
Email / Report Sample	
<p>Email example:</p> <div>  <p>Dear steven,</p> <p>Your used backup quota is over 80%.Please upgrade your storage quota or modify your retention policy to free up more space to avoid backup failure due to full storage.</p> <p>Sincerely, Ahsay Support Team</p> </div>	

Trial User Reminder / Alert									
What is this email about?	When will you receive it?								
<p>A reminder to alert trial backup users their account is about to expire in the set number of days.</p> <p>By default, the preset value of this setting is 7 when this feature is enabled.</p>	<p>The trial user reminder / alert email is generated and sent to backup user at 6:00am daily.</p>								
What action should you take?									
<p>In order to continue using your account for backup and restore, contact your backup service provider to subscribe to the paid backup service.</p>									
Email / Report Sample									
<p>Email sample:</p> <div>  <p>Dear steventrial,</p> <p>Your trial account will expire in 2 days.Please contact your administrator for further action. Below is the trial information of this account.</p> <table> <tr> <td>User</td><td>steventrial</td></tr> <tr> <td>Registration Day</td><td>11/22/2016</td></tr> <tr> <td>Day(s) to Trial End</td><td>2</td></tr> <tr> <td>Total Trial Days</td><td>30</td></tr> </table> <p>Sincerely Ahsay Support Team</p> </div>		User	steventrial	Registration Day	11/22/2016	Day(s) to Trial End	2	Total Trial Days	30
User	steventrial								
Registration Day	11/22/2016								
Day(s) to Trial End	2								
Total Trial Days	30								

Welcome Email	
What is this email about?	When will you receive it?
<p>A welcome message generated by the AhsayCBS to confirm a backup account has been created</p>	<p>Shortly after a Backup User account has been created</p>
What action should you take?	
<p>You can click on the link in the email to download the client backup application if you have not done so.</p>	

Email / Report Sample

Email sample:



Dear steven,

Welcome to Ahsay Cloud Backup Suite

Please [click here](#) to download and install the AhsayOBM.

User Setting

Login Name	steven
Alias	Steven (K drive)
Language	English
Contact	Steven <steven.tse@ahsay.com>
Backup Quota	500G

Sincerely
Ahsay Support Team

Daily User Report

(Appears as: Email me consolidated email report only at this time daily)

What is this email about?	When will you receive it?
<p>A consolidated report in PDF format, showing the following categories of information:</p> <ul style="list-style-type: none"> ❶ PROBLEMS – errors for System / Backup / Restore / Replication / Redirection ❷ ISSUES – potential issues that may cause problems on System/Security, Users or Backup Sets ❸ ACTIVITIES – all Backup Jobs / Restore Jobs / Setting Changes performed ❹ STATISTICS – statistics on User Account / Data Transfer / Disk Storage Usage 	<p>The daily user report is generated and sent to backup user at the time defined by the system administrator in this menu</p>
What action should you take?	
<p>Click on the attachment in the email to get re-directed to the consolidated report page. The report is in interactive format which allows you click on different tabs/sections for the corresponding report data. Refer to Appendix I for further explanation of the daily user report.</p>	

Email / Report Sample

Email sample:



Dear steven.tse@ahsay.com,

Please download the attachment "DailyUserReport.html" to view your consolidated Daily User Report for 2016-07-12. **1680 error(s)** and **1 issue(s)** were found by the system. Please review and fix them as soon as possible.

Sincerely
Ahsay Support Team

Report sample:

[WEB VIEW](#) [PRINT VIEW](#)


Daily User report (steven.tse@ahsay.com)

Generated at : Tue, 12 Jul 2016 01:00:01 CST

PROBLEMS ISSUES ACTIVITIES STATISTICS


System Backup Restore Replication Redirection

No.	Events	Start Time / End Time	Total No. of Occurrence
1	ReplicateError	2016-07-11 01:00:06 / 2016-07-11 03:11:29	788

Inactive Backup Report (Appears as: Email me inactive backup report when my backup set hasn't run for this number of days)									
What is this email about?	When will you receive it?								
A report showing all backup sets under this backup user account that have not been run in the set number of day.	Inactive Backup Report is generated and sent to backup user every 15 mins (every :00, :15, :30 and :45 of an hour)								
What action should you take?									
You may have to check for the causes for the backup sets, especially scheduled backup sets that are not running. That could be caused by, for example, incorrect login credentials of the client backup application, Internet connection problem, etc.									
Email / Report Sample									
<p>Email sample:</p> <div>  <p>Dear backup_report, Your backup set "File-1" haven't performed any backup for 5 days.Please contact your administrator for necessary action. Below is the backup activity of this backup set.</p> <table> <tr> <td>User</td><td>backup_report</td></tr> <tr> <td>Backup Set</td><td>File-1</td></tr> <tr> <td>Last Backup Time(Days Without Backup)</td><td>2015-07-14 12:16:37(5 days without backup)</td></tr> <tr> <td>Notification Days</td><td>30</td></tr> </table> <p>Sincerely Ahsay Support Team</p> </div>		User	backup_report	Backup Set	File-1	Last Backup Time(Days Without Backup)	2015-07-14 12:16:37(5 days without backup)	Notification Days	30
User	backup_report								
Backup Set	File-1								
Last Backup Time(Days Without Backup)	2015-07-14 12:16:37(5 days without backup)								
Notification Days	30								

Bcc reports to email

You can add email recipients in this section so that they will receive a blind carbon copy (bcc) of the email reports as well.

1. Click the  button under the **Bcc reports to email** section.



Name

2. Enter the name of the recipient, email address and other details if necessary.



Contact

Name

Email

☐ Encrypt Email

Address

Company

Website

Phone 1

Phone 2




- If you wish to encrypt the email, mark the Encrypt Email checkbox. You will be re-directed to another page to upload the **Digital Certificate**. Click the Choose File button to upload the digital certificate, then click the tick button at the bottom of the page to confirm.



Upload Digital Certificate


Digital Certificate for abc@abc.com (.crt)

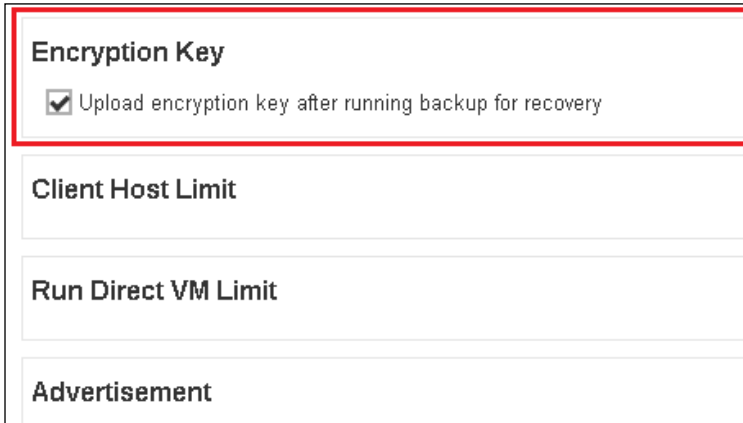
Upload cert: No file chosen

3. Click the green  button at the bottom of the page when you are done with the settings.
4. Click  and  at the bottom of the page to confirm the setting.

Encryption Key

Once you enabled the encryption recovery option. The encryption key file will be uploaded to the Backup Server. In case user has forgotten the encryption key, you can still contact us to recover the key.

Turn on the  switch on the right and then make sure the check box **Uploaded encryption key after running backup for recovery** is checked for this feature to work.



Encryption Key

☒ Upload encryption key after running backup for recovery

Client Host Limit


Run Direct VM Limit

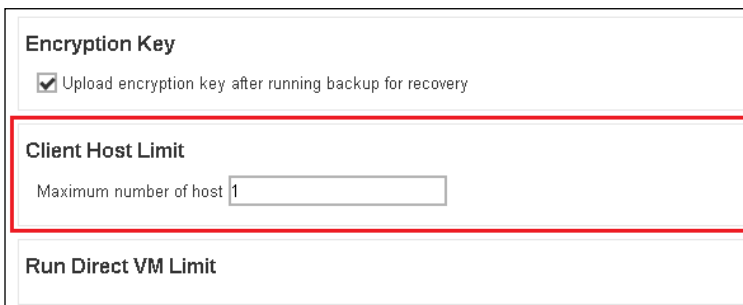
Advertisement

From AhsayCBS v7.9.2.0 onwards, it is possible to submit an encryption key recovery request via the AhsayCBS web console. Refer to the [Recovering Encryption Key via AhsayCBS Web Console](#) section for detailed instructions.

Client Host Limit

Since version 7.7, administrator is able to set the maximum number of host machine for a backup users account.

Turn on the  switch on the right and then enter the **Maximum number of host** as shown below.



Encryption Key

☒ Upload encryption key after running backup for recovery


Client Host Limit

Maximum number of host

Run Direct VM Limit

Run Direct VM Limit

Since version 7.9, administrator is able to set the maximum number of VM for Run Direct restore.

Turn on the  switch on the right and then enter the **Run Direct VM Limit** as shown below.

Encryption Key


Client Host Limit

Run Direct VM Limit

Maximum number of VM

Advertisement


Since version 7.7, administrator is able to customize the advertising banner on the AhsayOBM/AhsayACB interface. CBS supports both GIF and SWF formats at the size of (830 x 102 px).

1. Turn on the  switch on the right to turn on this feature.

Advertisement 



<input type="checkbox"/>	Name	Display Time (in seconds)	Type	URL	Language	Platform	Last Uploaded Time	Size
<input type="checkbox"/>	Default advertisement (gif)	20	gif	--	All	All	06/01/2016 08:52:20	35k
<input type="checkbox"/>	Default advertisement (swf)	20	swf	--	All	All	06/01/2016 08:52:20	27k

2. Press the  button to configure the advertisement.
3. Enter details in the following fields below.

Advertisement

Name

Display Time (in seconds)

Type

URL

://

Language

Platform

Image (830 x 102 px)

No file chosen


- ◉ **Name** – name of the advertisement banner.
- ◉ **Display Time (in seconds)** – period of time for the advertisement to be shown before it rotates to the next one.
- ◉ **Type** – format of the banner, whether it is in **gif** or **swf** format.
- ◉ **URL** - the click through URL of the gif type banner. For flash banner, the click through URL should be coded inside the flash banner.
- ◉ **Language** – select in which language setting in AhsayOBM/AhsayACB will the banner be shown. If **All** is selected, the banner shows no matter what language is selected in the AhsayOBM/AhsayACB.
- ◉ **Platform** – select on which platform (Windows, Mac & Linux) AhsayOBM/AhsayACB is used for the banner to show. If **All** is selected, the banner shows no matter what platform the AhsayOBM/AhsayACB is running on.
- ◉ **Image (830 x 102 px)** – click **Choose File** to upload the banner.

Backup Set Settings

This section allows administrator to set up backup exclusion and backup destination visible to users. It has 3 sub-sections.

Exclude Backup File

This menu allows you to set filter to exclude files from performing backup job. This feature is disabled by default.



- **Files on mapped drive** – files from mapped drive will be excluded from backup (applicable only to UNC path on Windows platform). Typical UNC path is in the format of [\\drive or IP address\\folder name](#) (e.g. [\\10.1.0.10\\My Documents](#)).
- **Files larger than** – files larger than the defined size will be excluded from backup
- **File older than** – files created the set period of time ago or before a specific set date will be excluded from backup

Destinations Visible to Users



There are two kinds of destinations backup users can choose from when creating a backup set, they are the Predefined Destination and Standard Destination. Only the destinations selected in this menu will be available for backup users to choose from when they are creating a backup set. This feature is disabled by default.

Below is a brief explanation on the differences between the Predefined Destination and Standard Destination.

Predefined Destination vs Standard Destination

- **Predefined Destination** - The predefined destination can be a single storage destination on the local drive where CBS is installed, mapped drive, cloud storage or FTP server, or a destination pool with a mix of storage options mentioned above. Before you can select a predefined destination in this menu, it must first be configured under the **System Settings > Backup > Predefined Destinations**. Refer to [Predefined Destinations Tab](#) for details on configuration.
- **Standard Destination** - Except for the AhsayCBS storage option, all other storage options under the Standard Destination belong to the backup users, whether it could be a single storage destination on the mapped drive, cloud storage or FTP server, or a destination pool with a mix of storage options mentioned above.

To configure the Predefined Destination

1. Turn on the  switch on the right under the **Destinations Visible to Users** section.
2. Click on the  button under the **Predefined Destination** section.






Predefined Destination




 

<input type="checkbox"/>	Name	Destination Storage	Info	Quota	Run Direct
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3. Select the desired destination option, which has been defined in the **System Settings > Backup > Predefined Destinations** menu, by checking the box on the desired destination item.

Add Predefined Destination

<input type="checkbox"/>	Name	Destination Storage	Info
<input type="checkbox"/>	Alans Storage		Microsoft Account:
<input type="checkbox"/>	Group Storage		Dropbox Account:
<input type="checkbox"/>	My-storage		Google Account:
<input type="checkbox"/>	GoogleDrive-1		Google Account:
<input type="checkbox"/>	AC_LCD2		Google Account:

4. Click the  button to confirm adding the predefined destination.
5. If you have multiple predefined destinations to add, repeat steps 3 -4 until all desired destinations have been selected.
6. Click the  and  buttons at the bottom of the page to confirm.

To configure the Standard Destination

1. Turn on the  switch on the right under the **Destinations Visible to Users** section.
2. Click on the  button under the **Standard Destination** section.

Standard Destination

☐ Customize application name




☐ Name

3. Select the desired storage option from the drop-down menu as shown below.

Standard Destination



Local / Mapped Drive / Removable Drive ▼
















Local / Mapped Drive / Removable Drive
阿里云
CTYun
Amazon Cloud Drive
Amazon S3
AWS S3 Compatible Cloud Storage
Google Cloud Storage
Google Drive
Microsoft Azure
OneDrive
OneDrive for Business
Rackspace
OpenStack
Dropbox
FTP
SFTP
Destination pool
AhsayCBS

4. Click the  button to add the selected standard destination storage.
5. If you have multiple destination storages to add, repeat steps 3 – 4 until all desired storages have been selected.
6. Click the  and  buttons at the bottom of the page to confirm.
7. You will see the newly added destination shown on the list as shown.

Standard Destination



☐ Customize application name

<input type="checkbox"/>	Name
<input type="checkbox"/>	 Local / Mapped Drive / Removable Drive
<input type="checkbox"/>	 Amazon S3
<input type="checkbox"/>	 AWS S3 Compatible Cloud Storage
<input type="checkbox"/>	 Google Cloud Storage
<input type="checkbox"/>	 Google Drive
<input type="checkbox"/>	 Destination pool
<input type="checkbox"/>	 Microsoft Azure
<input type="checkbox"/>	 OneDrive
<input type="checkbox"/>	 OneDrive for Business
<input type="checkbox"/>	 Rackspace
<input type="checkbox"/>	 OpenStack
<input type="checkbox"/>	 Dropbox
<input type="checkbox"/>	FTP FTP
<input type="checkbox"/>	SFTP SFTP
<input type="checkbox"/>	 AhsayCBS
<input type="checkbox"/>	 Amazon Cloud Drive
<input type="checkbox"/>	 阿里云

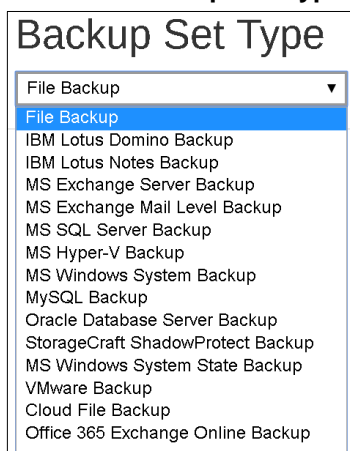
Backup Set Types Visible to Users




The AhsayCBS supports a wide range of backup set types for backup and restore. This menu allows the administrator to select the backup set types to be displayed for backup users to choose from when they are creating a backup set on AhsayCBS, AhsayOBM or AhsayACB. This feature is disabled by default.

1. Turn on the  switch on the right under the **Backup Set Types Visible to Users** section.
2. Click on the  button.





3. Select the **Backup Set Type** you wish to add from the drop-down menu as shown below.

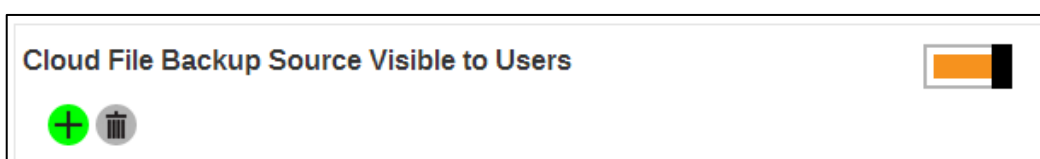


4. Click the  button to add the selected backup set type.
5. If you have multiple backup set types to add, repeat steps 3 - 4 until all options have been selected.
6. Click  and  buttons at the bottom of the page to confirm.

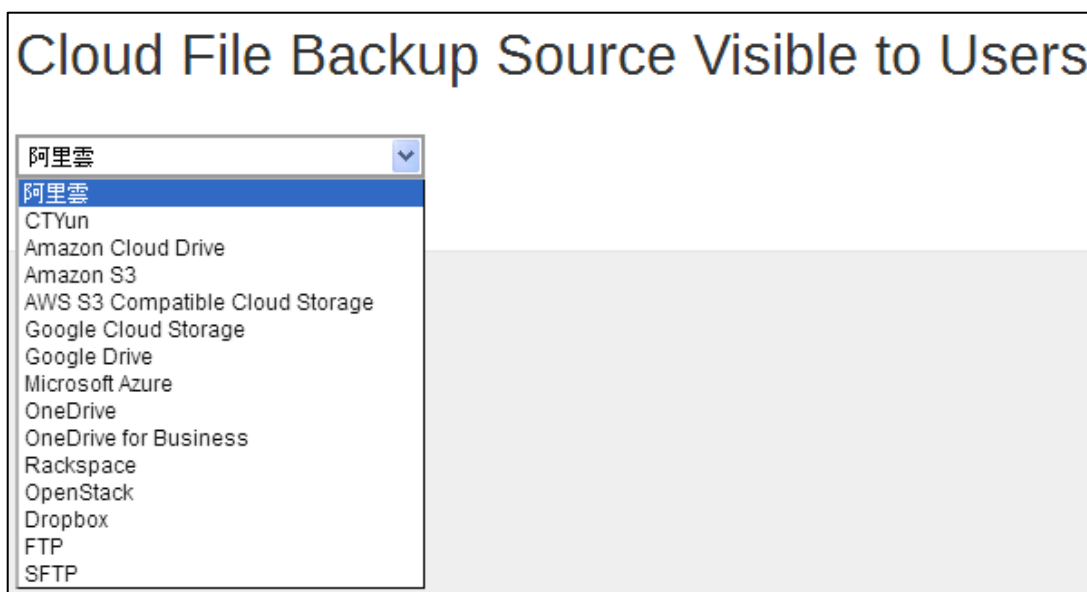
Cloud File Backup Source Visible to Users




This menu allows the administrator to select specific cloud file backup source(s) to be visible to backup users when they are creating a Cloud File Backup Set. By default, this feature is on with all cloud file backup sources pre-selected.

1. Turn on the  switch on the right under the **Cloud File Backup Source Visible to Users** section.
2. Click on the  button.





3. Select the **Cloud File Backup Source Visible to Users** you wish to add from the dropdown menu as shown below.





































4. Click the  button to add the selected cloud file backup source.
5. If you have multiple cloud file backup source to add, repeat step 3 - 4 until all options have been added.
6. Click  and  buttons at the bottom of the page to confirm.

GUI Settings

In this menu, administrator can configure the GUI elements to be shown on the client backup agent (AhsayOBM or AhsayACB) interface for backup users. The **View** checkbox allows administrator to decide whether to display the GUI item, and for some items, the **Edit** checkbox is available to enable backup users for changing or accessing the GUI item(s).









Policy	The GUI element on AhsayOBM/AhsayACB
Client Type	The Client Backup Type (AhsayOBM  or AhsayACB )
Apply	Check this box if you wish to configure the “ View ” and “ Edit ” option for the GUI item. If this box is not checked, the GUI item will be shown on AhsayOBM/AhsayACB by default.
View	Enable or disable backup user to view the item
Edit	Enable or disable backup user to edit the item

GUI Settings				
Policy	Client Type	Apply <input type="checkbox"/>	View <input type="checkbox"/>	Edit <input type="checkbox"/>
Main Menu				
Backup	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Restore	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Backup Sets	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Settings	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Report	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Utilities	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Profile	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Language	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Information	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Advertisement	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Links to Social Media - Facebook	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="http://ahsay.com/social/facebook.html"/>
Links to Social Media - Twitter	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="http://ahsay.com/social/twitter.html"/>
Links to Social Media - Google+	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="http://ahsay.com/social/google+.html"/>
Links to Social Media - LinkedIn	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="http://ahsay.com/social/linkedin.html"/>
Links to Social Media - YouTube	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="http://ahsay.com/social/youtube.html"/>
Effective Policy	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Help	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Since AhsayCBS v7.11.0.0, we have added additional items under the GUI settings to give you greater flexibility for customizing the GUI elements on the client backup agent (AhsayOBM & AhsayACB). Refer to the information below for further details.

New Backup Set Wizard

There are four setting items under this new setting category to enable or disable the Destination and Encryption Key settings when creating a new backup set using the client backup agent.

Policy	Client Type	Apply <input type="checkbox"/>	View <input type="checkbox"/>	Edit <input type="checkbox"/>
New Backup Set Wizard - Destination	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Backup Set Wizard - Encryption	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Backup Set Wizard - Encryption - Enable / Disable	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Backup Set Wizard - Encryption - Options	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



New Backup Set Wizard – Destination

You can set to restrict backup users from using the default destination where they can only view the default destination but cannot change it **OR** to allow them to choose the desired backup destination on their own.

New Backup Set Wizard - Destination	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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To restrict the backup destination WITHOUT letting backup user to change it, check the **View** box and left the **Edit** box unchecked. With this configuration, backup users can only view the backup destination that is predefined under the **Users, Group & Policies > Policy Group > Default Values > Destination** page, but cannot alter the backup destination when creating a new backup set using the client backup agent.



Note: If there is no destination defined in the **Default Values** menu as mentioned above, you will not be allowed to configure this setting.

New Backup Set Wizard - Destination	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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By checking both the **View** and **Edit** checkboxes, backup users can choose their desired backup destination from the choices defined under the **Users, Group & Policies > Policy Group > Backup Set Settings > Standard Destination**.

New Backup Set Wizard – Encryption



This setting is used in conjunction with the **New Backup Set Wizard – Enable/Disable** and **New Backup Set Wizard – Options** settings.

New Backup Set Wizard - Encryption	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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When the **View** checkbox is checked for this option, the encryption key setting page will be shown when creating a new backup set with a client backup agent, otherwise, the relevant page will be skipped.

New Backup Set Wizard – Enable / Disable

In order for this setting to work, the View option for **New Backup Set Wizard – Encryption** setting must be turned on.

New Backup Set Wizard - Encryption - Enable / Disable	 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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When you set the View option on and the Edit option off for this setting, the Encryption Key feature will be turned on by default.

New Backup Set Wizard - Encryption - Enable / Disable			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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When you set both the **View** and **Edit** options on, backup users will be able to enable or disable this feature on their own.

• New Backup Set Wizard – Options

This setting allows backup users to choose the Encryption Type among **Default**, **User Password** or **Custom**.

New Backup Set Wizard - Encryption - Options			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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When you set the View option on and the Edit option off for this setting, the encryption type will not be configurable and will use the default value defined in **Users, Group & Policies > Policy Group > Default Values > Others > Encryption**.

New Backup Set Wizard - Encryption - Options			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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When you set both the **View** and **Edit** options on, backup users will be able to choose their desired encryption type.



Help Page

This option allows you to configure whether to show the Help button on the UI of the client backup agent. The Help button takes you to a set of online help instructions that correspond to the relevant page in the client backup agent.

Help			<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Add Contact



This option allows backup users to add Contact information, such as name, email, address, etc. under the **Profile > Contacts** page in the client backup agent.

Add Contact			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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By checking the View checkbox for this option, backup users can configure contact information on their own.



Remove Contact

This option allows backup users to remove contact information under the **Profile > Contacts** page in the client backup agent.

Remove Contact			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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By checking the View checkbox for this option, backup users can remove contact information on their own in the client backup agent.

Add Backup Set

Add Backup Set			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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By enabling the View checkbox of this option, backup users are able to add backup set using the client backup agent.


Remove Backup Set

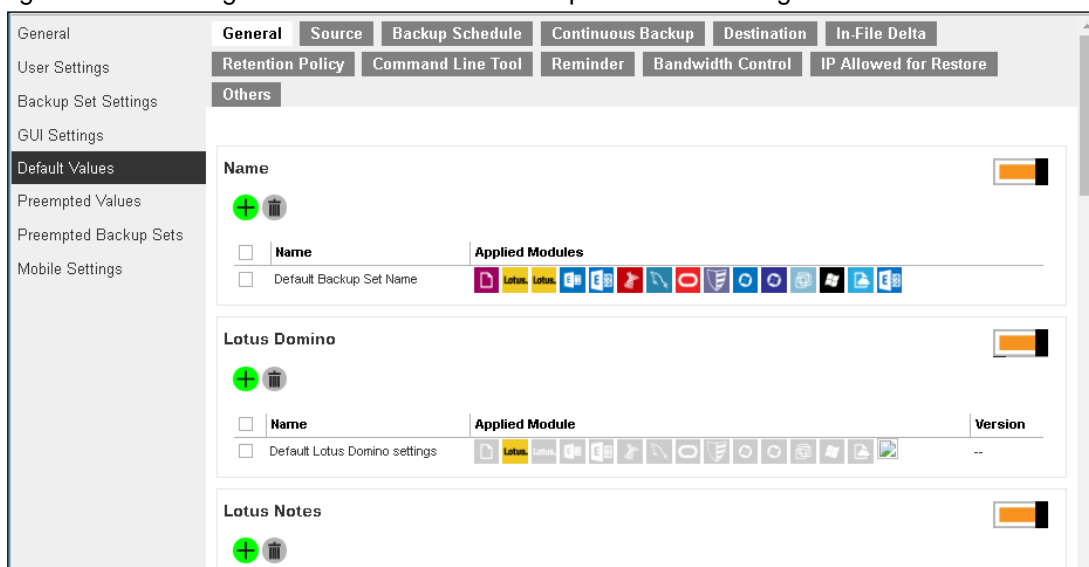
Remove Backup Set 🔍 🔍 ☒ ☒

By enabling the View checkbox of this option, backup users are able to remove backup set using the client backup agent.

Default Values

This section allows administrator to define the default values for numerous setting items. The default values set under this setting menu will be applied to the backup sets directly. However, users can still override the default values during new backup set creation. As opposed to Preempted Values, which will be introduced later in this chapter, is a set of predefined values by the system administrator where backup users have no right to override the settings.

All setting items under the Default Values tab are disabled by default. Click the  switch on the right of each setting item and then follow the steps below for configuration.



General

This section defines the default values of some general configuration items. The following table explains each setting item under the **General** tab, with a brief description of what the setting is about and all the configurable items.

Name	
What is this setting about?	Defines the default backup set name when backup users create a backup set. Multiple settings can be created in this menu if you wish to define different default backup set names for different backup modules.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Backup Set Name – default backup set name to be displayed when a backup set is created for the selected module(s).

Lotus Domino	
What is this setting about?	Defines the path to notes.ini . Please exercise extra caution when changing this setting because an accidental or incorrect change of this path may cause unpredictable impact on running the Lotus Domino. Refer to the URL below for further information on this setting. http://www.ibm.com/support/knowledgecenter/SSKTMJ_9.0.1/admin/conf_editingthenotesinifile_c.html
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of this setting item ➤ Path to notes.ini – path name of the Path to notes.ini

Lotus Notes	
What is this setting about?	Defines the path to notes.ini . Please exercise extra caution when changing this setting because an accidental or incorrect change of this path may cause unpredictable impact on running the Lotus Notes. Refer to the URL below for further information on this setting. http://www.ibm.com/support/knowledgecenter/SSKTMJ_9.0.1/admin/conf_editingthenotesinifile_c.html
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of this setting item ➤ Path to notes.ini – path name of the Path to notes.ini

Windows System Backup	
What is this setting about?	Defines the default location where you wish to store the system backup for MS Windows System Backup module
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of this setting item ➤ Specify the location where you want to store the system backup – location path where you wish the system backup be stored

Windows System State Backup	
What is this setting about?	Defines the default location where you wish to store the system backup for MS Windows System State Backup module.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of this setting item ➤ Specify the location where you want to store the system backup – location path where you wish the system state backup be stored

MySQL Server	
What is this setting about?	Defines the default Login ID, Host name, Port and Path to mysqldump for MySQL server backup module
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of this setting item ➤ Login ID – login ID for accessing the MySQL server ➤ Host – host name of the MySQL server ➤ Port – port number ➤ Path to mysqldump – path name to the mysqldump utility

Oracle Database Server	
What is this setting about?	Defines the default Login ID, Host name, Port and SID for Oracle Database Server module
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of this setting item ➤ Login ID – login ID for accessing the Oracle Database server ➤ Host – host name of the Oracle server ➤ Port – port number ➤ SID – the unique identifier to the database instance

VMware Host	
What is this setting about?	Defines the default VMware version, host name, port number and SSH port for VMware backup module
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of this setting item ➤ Version – VMware version ➤ Host – host name of the VMware host ➤ Port – port number ➤ SSH Port – SSH port number

Shadow Protect	
What is this setting about?	Defines the default path to install the Shadow Protect and whether to encrypt the image file in temporary directory.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of this setting item ➤ Path to StorageCraft ShadowProtect – the path where you installed the ShadowProtect ➤ Encrypt the image file in temporary directory – to enable or disable encryption for image file in the temporary directory where the ShadowProtect image is stored.

Windows User Authentication	
What is this setting about?	Defines the default domain name/host name and user name for backup users to enter the Windows User Authentication details. Multiple settings can be created in this menu if you wish to define different default domain name/host name and user name for different modules.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of this setting item ➤ Applied Modules – modules you wish to apply this default setting to ➤ Domain Name (e.g. ahsay.com) / Host Name – domain name or host name of the Windows login ➤ User name – user name to log in to the backup user's Windows for backup

Source

This section defines the default backup source values. The following table explains each setting item under the **Source** tab, with a brief description of what the setting is about and all the configurable items.

Common Folders for Windows	
What is this setting about?	Defines the default common files and folders to be selected when user are creating a backup set for File Backup.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Common Files and Folders – a list of common files or folders to choose from as default backup source when creating a file backup set.

Filter	
What is this setting about?	Defines the default filters which used to include/exclude files in the backup source from performing backup. This filter applies only to File Backup on Windows platform. Creating multiple filter settings is possible.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the filter setting ➤ Matching pattern - defines the pattern of the file selection, e.g., *.doc, *.png. ➤ For each of the matched files/folders under top directory – define to include or exclude all the files/folder matching the filtering criteria under the top directory ➤ Exclusion / Inclusion – to include (if you have chosen to exclude the matched files) or exclude (if you have chosen to include the matched files) those unmatched files/folder in the backup ➤ Match file/folder names by – you can set the following filtering rules: <ul style="list-style-type: none"> [Simple comparison starts with] Include/Exclude all files/directories with name starting with a certain pattern. Example: <i>You can use B* to match all file with name starting with a B character.</i> [Simple comparison ends with] Include / Exclude all files / directories with name ending with a certain pattern. Example: <i>You can use *.doc to match all files with name ending with .doc (all Word Documents)</i> [Simple comparison contain] Include/Exclude all files/directories with name containing a certain pattern. Example: <i>You can use *B* to match all files with name containing with a B character.</i> [Regular Expression (UNIX-style)] Include/Exclude all files/directories with name matching a regular expression. Notes: <ul style="list-style-type: none"> ➤ The pattern of a backup filter is case sensitive. ➤ If multiple patterns are required, please add the pattern one by one e.g.: *.doc and then *.xls ➤ How to Apply This Filter – you can choose to apply this filter on “All hard disk drivers” or a selected folder of your choice. ➤ Apply to - apply the filter to the File and/or Folder level

Use Cases	<p>Example 1 If you want to backup only Word, Excel and PowerPoint documents in your document directory (e.g. C:\My Documents), you should setup your backup filter as follows.</p> <p>Matching pattern = *.doc, *.xls, *.ppt For each of the matched files/folders under top directory = Include them Exclusion = Check Match file/folder names by = Simple comparison end with How to Apply This Filter = This folder only C:\My Documents Apply to = File</p> <p>Example 2 If you want to backup all files, excluding all *.exe, *.dll and *.tmp, in C:\Application, you should setup your backup filter as follows.</p> <p>Matching pattern = *.exe, *.dll, *.tmp For each of the matched files/folders under top directory = Exclude them Inclusion = Check Match file/folder names by = Simple comparison end with How to Apply This Filter = This folder only C:\Applicaitons Apply to = File</p> <p>Example 3 If you have already chosen files (all under C:\) from the backup source setting but you want to exclude all images (e.g. *.jpg and *.gif) from your selection, you should setup your backup filter as follows.</p> <p>Matching pattern = *.jpg, *.gif For each of the matched files/folders under top directory = Exclude them Inclusion = uncheck Match file/folder names by = Simple comparison end with How to Apply This Filter = This folder only C:\ Apply to = File</p> <p><i>Please note that the Inclusion setting should not be checked because you have already chosen the desired files to back up and do not want to include all other files (NOT *.jpg, *.gif) under C:\ into the backup set.</i></p> <p>Example 4 If you want to include everything, except the "log" directory, under C:\Applications into a backup set, you should setup your backup filter as follows.</p> <p>Matching pattern = ^log\$ For each of the matched files/folders under top directory = Exclude them Inclusion = check Match file/folder names by = Regular Expression (UNIX-style)</p>
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	<p>How to Apply This Filter = C:\Applications Apply to = Folder</p> <p>Example 5 If you want to include all directories named "log" from the backup set files with file name starting with "B" and ending with "*.doc" under C:\My Documents into the backup set, you can use a regular expression of "^B.*\doc\$" to do your selection. The filter backup can then be setup as follows.</p> <p>Matching pattern = ^B.*\doc\$ For each of the matched files/folders under top directory = Include them Exclusion = check Match file/folder names by = Regular Expression (UNIX-style) How to Apply This Filter = C:\My Documents Apply to = File</p>
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Advanced	
What is this setting about?	Defines the default advanced settings, including the platform of the user's machine, the backup module, selected or deselected source for backup.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Platform – select the platform to apply this advanced filter ➤ Applied Modules – modules you wish to apply this default setting to ➤ Other Selected Source – define the path of the source, e.g. Windows: C:\My folder; Linux: /home/my folder, to include in the backup set ➤ Deselected Source - define the path of the source, e.g. Windows: C:\My folder; Linux: /home/my folder, to exclude in the backup set

Backup Schedule

Setting up the backup schedule allows backup sets to run automatically at the specified time. This section allows administrator to define the default backup schedule. The following table explains each setting item under the **Backup Schedule** tab, with a brief description of what the setting is about and all the configurable items.

Schedule	
What is this setting about?	Defines the default backup schedule when backup users create a backup set. Multiple settings can be created in this menu if you wish to define different default backup schedule for different backup modules. Within a backup schedule setting, multiple schedules can be added.
What are the configurable items?	<p><u>Backup Schedule</u></p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Run scheduled backup for this backup set – to enable or disable the scheduled backup settings you set in this menu <p><u>Manage Schedule</u></p> <ul style="list-style-type: none"> ➤ Name – name of the scheduler ➤ Type – frequency of running the scheduled backup <ul style="list-style-type: none"> Daily – to run the scheduled backup everyday Weekly – to run the scheduled backup on the selected days of a week Monthly – to run the scheduled backup on a specific day in a month, or on a specific day in a specific week. Custom – to run the scheduled backup on a specific day of your selection ➤ Start backup at – specify a specific time to run the scheduled backup based on the frequency set in the Type menu above. ➤ Stop – set the scheduled backup to stop either <ul style="list-style-type: none"> - Full backup is completed regardless of how much time it takes OR - After the backup has started for the set time (1-24 hr) regardless if the backup is done ➤ Run Retention Policy after backup – enable this feature if you wish the modified or deleted data after backup remains in the backup server for the set number of retention day

Continuous Backup

When the Continuous Backup feature is enabled, a backup job will be triggered whenever a change is made in the backup source. This section allows administrator to define the default continuous backup settings. The following table explains each setting item under the **Continuous Backup** tab, with a brief description of the available settings and all the configurable items. **Continuous Backup is only available on Windows platform.**

IMPORTANT

When setting up the Continuous Backup feature for a backup set, you must run a manual or scheduled backup job first so that the initial files are uploaded your designated backup destination.

Continuous Backup	
What is this setting about?	Defines whether to enable this feature, whether to exclude system files, frequency of running backup when changes are detected, configure the maximum file size allowed for backup and configure filters to exclude files from backup.
What are the configurable items?	<p><u>Continuous Backup</u></p> <ul style="list-style-type: none">➤ Name – name of the setting item➤ Backup whenever a change is made – enable or disable the continuous backup feature.➤ Exclude system files – enable this feature if you do not want to back up system files. Refer to Appendix J for a full list of system files excluded from the backup set.➤ How often should the backup run – set the frequency of running backup when changes are detected.➤ Only apply to files smaller than – file size that is larger than the set value will not be backed up.➤ Run CDP on computers named – define the name of the computer on which continuous backup will be run. <p><u>Exclude Filter</u></p> <ul style="list-style-type: none">➤ Name - name of the filter setting item➤ Match file/folder names by – you can set the following filtering rules: [Simple comparison starts with] Include/Exclude all files/directories with name starting with a certain pattern.

	<p>Example: You can use <i>B*</i> to match all file with name starting with a <i>B</i> character.</p> <p>[Simple comparison ends with] Include / Exclude all files / directories with name ending with a certain pattern. Example: You can use <i>*.doc</i> to match all files with name ending with <i>.doc</i> (all Word Documents)</p> <p>[Simple comparison contain] Include/Exclude all files/directories with name containing a certain pattern. Example: You can use <i>*B*</i> to match all files with name containing with a <i>B</i> character.</p> <p>[Regular Expression (UNIX-style)] Include/Exclude all files/directories with name matching a regular expression.</p> <p>Notes:</p> <ul style="list-style-type: none"> - The pattern of a backup filter is case sensitive. - If multiple patterns are required, please add the pattern one by one e.g.: *.doc and then *.xls <ul style="list-style-type: none"> ➤ Matching pattern - defines the pattern of the file selection, e.g., *.doc, *.png. ➤ Apply This Filter to all files/folders in – you can choose to apply this filter on “All selected sources” or a selected folder of your choice ➤ Apply to - apply the filter to the File and/or Folder level
Use Cases	<p>Example 1 If you want to back up all files, except all Word, Excel and PowerPoint documents, in your document directory (e.g. C:\My Documents), you should setup your backup filter as follows.</p> <p>Match file/folder names by = Simple comparison end with Matching pattern = *.doc, *.xls, *.ppt Apply this filter to all files/folders in = This folder only C:\My Documents Apply to = File</p> <p>Example 2 If you want to include everything, except the “log” directory, under C:\Applications into a backup set, you should setup your backup filter as follows.</p>

	<p>Match file/folder names by = Regular Expression (UNIX-style) Matching pattern = ^log\$ Apply this filter to all files/folders in = C:\Applications Apply to = Folder</p> <p>Example 3 If you want to exclude all directories named "log" from the backup set files with file name starting with "B" and ending with "*.doc" under C:\My Documents into the backup set, you can use a regular expression of "^B.*\doc\$" to do your selection. The filter backup can then be setup as follows.</p> <p>Match file/folder names by = Regular Expression (UNIX-style) Matching pattern = ^B.*\doc\$ Apply this filter to all files/folders in = C:\My Documents Apply to = File</p>
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Destination

This section allows administrator to define the default backup destination for backup set. The following table explains each setting item under the **Destination** tab, with a brief description of what the setting is about and all the configurable items.

Destination	
What is this setting about?	Defines the default backup destination when backup users create a backup set. Multiple settings can be created in this menu if you wish to define different default destinations for different backup modules.
What are the configurable items?	<p>Destination</p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Backup Mode – select the files transfer method during backup <ul style="list-style-type: none"> Sequential – backup files are sent to the backup destination one by one, one after another. Concurrent – multiple files are sent to the backup destination at the same time ➤ Maximum concurrent backup destinations (only if you have selected Concurrent as the Backup Mode) – select the maximum number of files allowed for uploading to the backup destination ➤ Predefined Destination – select the predefined destination you have configured in the Predefined Destinations Tab section.

In-File Delta

In-file delta technology is an advanced data block matching algorithm with the intelligence to pick up changes (delta) of file content between two files.

Using this algorithm, daily backup of large files over low-speed internet connection is made possible because it requires only the changes of information since the last backup to be sent over (assuming that the full backup of the file has been saved on the backup server already).

This section allows administrator to define the default In-File Delta type for backup set. The following table explains each setting item under the **In-File Delta** tab, with a brief description of what the setting is about and all the configurable items.

In-File Delta	
What is this setting about?	Defines the default in-file delta setting for backup set. Multiple settings can be created in this menu if you wish to define different default in-file delta settings for different backup modules.
What kind of in-file delta type are there?	<p><u>Incremental In-file delta</u></p> <p>Incremental Delta will facilitate ease of backup. The delta is generated by comparing with the last uploaded full or delta file. Delta generated with this method is smaller and uses the least bandwidth. However, for restoration, the full file and all deltas up to the required point-in-time are required to be restored and merged.</p> <p><u>Differential In-file delta</u></p> <p>Differential Delta will facilitate ease of restore. The delta is generated by comparing with the last uploaded full file only. Delta generated with this method will grow daily and uses more bandwidth. However, for restoration, the full file and a single delta is required to be restored and merged.</p>
What are the configurable items?	<p><u>Destination</u></p> <ul style="list-style-type: none">➤ Name – name of the setting item➤ Applied Modules – modules to apply this setting to➤ Default Type – type of backup method (Incremental or Differential) <p><u>Advanced settings</u></p> <ul style="list-style-type: none">➤ In-File Delta block size – defines the size of delta block used when detecting changes between last full or delta file and the file to be backed up. <p><u>In-file delta backup with small block size</u></p> <ul style="list-style-type: none">- Produce a smaller delta file due to a more precise comparison- Require more processing power on the client machine- Comparison may take longer to complete- Require more Java memory

In-file delta backup with large block size:

- Produce a larger delta file due to a less precise comparison
- Require less processing power on the client machine
- Comparison will complete faster
- Require less Java memory

For most cases, the default setting **Auto** will select the optimal block size for each file (depending on the size of the file).

File size	Block size
Smaller than 2GB	4KB
2GB – 8GB	8KB
Larger than 8GB	16KB

- **Only apply In-File Delta to files larger than** – defines the minimum file size a file to apply the in-file delta setting. If the size of a file to be backed up is smaller than the set value, the in-file delta setting will not apply and the whole file will be uploaded to the backup server.

It is not necessary to perform In-file delta backup on small files because backing up the whole file does not take long. Backing up the whole file instead reduces the time required to restore the file.

- **Upload full file when either of these conditions is met** – a backup of the full file will be perform if the following condition is met:
- **Number of deltas is over** – when the number of delta file exceeds the set value
 - **Delta ratio (delta file size / full file size) is over** – this setting is to ensure that a full file backup is performed for file with significant changes, as it is preferable to upload a full file instead to reduce the time required to restore the file
- **Weekly variations for overriding default type** – override the default in-file delta setting in the **Default Type** field on selected day(s) of a week
- **Yearly variations for overriding default type and weekly variations** – override the default in-file delta setting in the **Default Type** field as well as the setting in the “**Weekly variations for overriding default type**” section on a selected day in a week based on either of the following selection
- **Day of selected months in yearly variations** - select a specific day in a month. On this specified day in the month defined above will the in-file delta variation setting override the default value.

Retention Policy

Retention policy defines the policies of persistent data management for meeting business data archival requirements. When a backup job is performed, for data that are modified or deleted on the client computer, their existing versions on the backup server (backup records) will be moved into retention area, while newly backed up files will be placed in the current data area.

Specifically, retention policy setting defines how long are the backup records kept in the retention area before they are deleted permanently from the backup server.

This section allows administrator to define the default Retention Policy for backup set. The following table explains each setting item under the **Retention Policy** tab, with a brief description of what the setting is about and all the configurable items.

Retention Policy											
What is this setting about?	Defines the default retention policy for backup sets when they are created. Multiple settings can be created in this menu if you wish to define different default retention policy for different backup modules.										
What are the configurable items?	<p>Destination</p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ How to retain the files in the backup set, which have been deleted in the backup source – choose between Simple and Advanced setting, which is explained in details below. <ul style="list-style-type: none"> - Simple – enter a specific number of day or backup job number. The retained data will be removed from the backup destination permanently after the set number of day or set number of job is met. - Advanced – manage advanced retention policies by applying advanced settings <table> <tr> <td rowspan="2">Daily</td><td>The past number of days on which different versions of your files are retained</td></tr> <tr> <td>Set the number of day(s) on which the old version of data will be stored</td></tr> <tr> <td rowspan="4">Weekly</td><td>The days within a week on which different versions of your files are retained</td></tr> <tr> <td>Select the day(s) in a week (Monday – Sunday) on which the old version of data will be stored</td></tr> <tr> <td>The number of weeks to repeat the above selection</td></tr> <tr> <td>Enter the number of week(s) for the above setting to repeat</td></tr> <tr> <td>Monthly</td><td>The days within a month on which different versions of your files are retained</td></tr> </table>	Daily	The past number of days on which different versions of your files are retained	Set the number of day(s) on which the old version of data will be stored	Weekly	The days within a week on which different versions of your files are retained	Select the day(s) in a week (Monday – Sunday) on which the old version of data will be stored	The number of weeks to repeat the above selection	Enter the number of week(s) for the above setting to repeat	Monthly	The days within a month on which different versions of your files are retained
Daily	The past number of days on which different versions of your files are retained										
	Set the number of day(s) on which the old version of data will be stored										
Weekly	The days within a week on which different versions of your files are retained										
	Select the day(s) in a week (Monday – Sunday) on which the old version of data will be stored										
	The number of weeks to repeat the above selection										
	Enter the number of week(s) for the above setting to repeat										
Monthly	The days within a month on which different versions of your files are retained										

			<p>Select a day in a month on which the old version of data will be stored. You can either set:</p> <ul style="list-style-type: none"> - An exact day (1-31) or - The (First/Second/Third/Forth/Last) of (Monday - Sunday)
			The number of months to repeat the above selection
			Enter the number of month(s) for the above setting to repeat
		Quarterly	The day within a quarter on which different versions of your files are retained
			<p>Select a day within a quarter on which the old version of data will be stored. You can either set:</p> <ul style="list-style-type: none"> - An exact day (1-31) or - The (First/Second/Third/Forth/Last) of (Monday - Sunday)
			Months of quarter
			<p>Select the desired combination of months of quarter</p> <ul style="list-style-type: none"> - (January, April, July, October) - (February, May, August, November) - (March, June, September, December)
			The number of quarters to repeat the above selection
			Enter the number of quarter(s) for the above setting to repeat
		Yearly	The day within a year on which different versions of your files are retained
			<p>Select a day within a year on which the old version of data will be stored. You can set the day by using one of the following methods:</p> <ul style="list-style-type: none"> - Select an exact day (1 – 31) in an exact month (January – December) - Select the (First/Second/Third/Forth/Last) of (Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday/Weekday/Weekend) in an exact month (January – December) - Select a day in a week (Monday – Sunday) in an exact week of a year (Week 1 - 53)
			The number of years to repeat the above selection
			Enter the number of year(s) for the above setting to repeat

		Custom	A specific day on which different versions of your files are retained
			<p>Select a day on which the old version of data will be stored. You can set the day by using one of the following methods:</p> <ul style="list-style-type: none"> - Select an exact day (1 – 31) in an exact month (January – December) - Select the (First/Second/Third/Forth/Last) of (Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday/Weekday/Weekend) in an exact month (January – December) - Select a day in a week (Monday – Sunday) in an exact week of a year (Week 1 - 53)
			Year
			Enter a specific year for the day set above to execute the retention policy

Command Line Tool

This section allows administrator to configure a Pre-Backup or Post-Backup command. Command such as batch file to stop and start an application before and after a backup job is completed, or other command such as to shut down the computer when a backup job is completed can be configured.

The following table explains each setting item under the **Retention Policy** tab, with a brief description of what the setting is about and all the configurable items.

Command Line Tool	
What is this setting about?	Defines the default command line to execute before or after a backup is performed. Multiple settings can be created in this menu if you wish to define different default command line for different backup modules.
What are the configurable items?	<p>Destination</p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Pre-Backup Command Line Tool – configure the pre-backup command line <ul style="list-style-type: none"> - Name – name of this command line setting. - Working Directory – directory which the pre-backup command will run at. - Command – Enter the pre-backup command to be run

	<ul style="list-style-type: none"> ➤ Post-Backup Command Line Tool – configure the post-backup command line <ul style="list-style-type: none"> - Name – name of this command line setting. - Working Directory – directory which the post-backup command will run at. - Command – enter the post-backup command to be run
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Reminder

This section allows administrator to enable the backup reminder feature where users will be reminded to run a backup job when they log off or shut down their computers. The reminder feature is only available on Windows platform.

The following table explains each setting item under the **Reminder** tab, with a brief description of what the setting is about and all the configurable items.

Reminder	
What is this setting about?	Defines whether the backup reminder is on for backup users when they log off or shut down their computers. Multiple settings can be created in this menu if you wish to define different settings for different backup modules.
What are the configurable items?	Destination <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Remind me to backup during Windows log off or shut down – turn on or off this feature <ul style="list-style-type: none"> - Computer name – you can specify the computer's name for this reminder to apply on

Bandwidth Control

This section allows administrator to limit the data transfer rate when performing backup and restore jobs.

Note	
➤	The actual value will be around +/- 5% of the limit value when the bandwidth control set to below 32Mb/s. When the bandwidth control set to above 64Mb/s, the gap between actual value and limit value might be over 5%.
➤	Network stability might influence the transfer rate fluctuation accuracy.

The following table explains each setting item under the **Bandwidth Control** tab, with a brief description of what the setting is about and all the configurable items.

Bandwidth Control											
What is this setting about?	Defines the default settings on limiting the data transfer rate when performing backup and restore jobs. Multiple settings can be created in this menu if you wish to define different settings for different backup modules.										
What are the configurable items?	<p>Destination</p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Limit the transfer rate when performing backup and restore tasks – click to turn on or off this feature <ul style="list-style-type: none"> - Mode <table border="1"> <tr> <td>Independent</td><td>Each backup and restore job has its assigned bandwidth</td></tr> <tr> <td>Share</td><td>All backup and restore jobs are sharing the same assigned bandwidth Note: Share mode does not support performing backup job on multiple destinations concurrently.</td></tr> </table> - Existing bandwidth controls – configure the bandwidth control details <table border="1"> <tr> <td>Name</td><td>Name of the bandwidth control setting item</td></tr> <tr> <td>Type</td><td>Always – apply the bandwidth control settings at all times Only within this period – configure a specific start time and end time on a day of a week for this bandwidth control setting to take place</td></tr> <tr> <td>Maximum transfer rate</td><td>Enter the maximum transfer rate allowed, in the unit of Kbit/s, Mbit/s or Gbit/s.</td></tr> </table> 	Independent	Each backup and restore job has its assigned bandwidth	Share	All backup and restore jobs are sharing the same assigned bandwidth Note: Share mode does not support performing backup job on multiple destinations concurrently.	Name	Name of the bandwidth control setting item	Type	Always – apply the bandwidth control settings at all times Only within this period – configure a specific start time and end time on a day of a week for this bandwidth control setting to take place	Maximum transfer rate	Enter the maximum transfer rate allowed, in the unit of Kbit/s, Mbit/s or Gbit/s.
Independent	Each backup and restore job has its assigned bandwidth										
Share	All backup and restore jobs are sharing the same assigned bandwidth Note: Share mode does not support performing backup job on multiple destinations concurrently.										
Name	Name of the bandwidth control setting item										
Type	Always – apply the bandwidth control settings at all times Only within this period – configure a specific start time and end time on a day of a week for this bandwidth control setting to take place										
Maximum transfer rate	Enter the maximum transfer rate allowed, in the unit of Kbit/s, Mbit/s or Gbit/s.										

IP Allowed for Restore

This section allows administrator to IP ranges that are allowed to perform restore. The following table explains each setting item under the **IP Allowed for Restore** tab, with a brief description of what the setting is about and all the configurable items.

IP Allowed for Restore	
What is this setting about?	Defines the default settings on IP allowed for restore. Multiple settings can be created in this menu if you wish to define different settings for different backup modules.

<p>What are the configurable items?</p>	<p>Destination</p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ IP Allowed for Restore– configure the IP ranges allowed for restore <ul style="list-style-type: none"> - From – restore allowed from this IP value - To - restore allowed up to this IP value
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Others

This section allows administrator to configure other default settings. The following table explains each setting item under the **Others** tab, with a brief description of what the setting is about and all the configurable items.

Temporary Directory	
<p>What is this setting about?</p>	<p>The temporary directory is used for various purposes, such as storage of temporary spooled file, remote file list, local file list, temporary delta file and other files of temporary nature.</p> <p>Administrator can define the default location of the temporary directory. Multiple settings can be created in this menu if you wish to define different temporary directory locations for different backup modules.</p>
<p>What are the configurable items?</p>	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Platform – the platform on which this setting will apply on ➤ Applied Modules – modules to apply this setting to ➤ Temporary directory for storing backup files – location of the temporary directory you wish to set. ➤ Remove temporary files after backup – the temporary files after backup if this option is selected

Follow Link	
<p>What is this setting about?</p>	<p>Administrator can define whether to turn on the Follow Link feature by default. When this feature is on, not only the symbolic link or junction point will be restored, the directories and files that the symbolic link or junction point links to will also be restored. This feature is only applicable to File Backup module.</p>
<p>What are the configurable items?</p>	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Follow link of the backup files – check the box to enable this feature



Volume Shadow Copy	
What is this setting about?	<p>Enabling the Volume Shadow Copy option will allow backup of local files that are exclusively opened during the backup process (e.g. Outlook PST file).</p> <p>Some requirements of the Volume Shadow Copy option include:</p> <ul style="list-style-type: none"> - Volume Shadow Copy can only be applied for local drive; exclusively opened file on network shared drive cannot be backed up even with the Volume Shadow Copy option enabled. - Volume Shadow Copy is only available on Windows platforms (e.g. Vista / 2008 / 2008 R2 / 7 / 2012 / 2012 R2 / 8 /10). - The user using the backup application must have administrative privileges to access the Volume Shadow Copy service on a computer. - At least one of the partitions on the machine must be in NTFS format. <p>For more technical information on Volume Shadow Copy, please refer to the following page from Microsoft for details: http://technet.microsoft.com/en-us/library/cc785914(WS.10).aspx</p> <p>Administrator can define whether to turn on the Volume Shadow Copy feature by default .This feature is only applicable to File Backup module.</p>
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Enable Windows' Volume Shadow Copy for open file backup – check or uncheck to enable or disable this feature

File Permissions	
What is this setting about?	<p>By enabling this option, file permissions of the operating system files will be backed up. File permission defines, for example, the right to view or change a file by the system owner/group/individual.</p> <p>Administrator can define whether to turn on the backup of File Permissions by default .This feature is only applicable to File Backup module.</p>
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Backup files' permissions – check the box to enable this feature

Archived Log Deletion	
What is this setting about?	Administrator can define whether the archived log files will be deleted after backup by default .This feature is only applicable to Oracle Database Server Backup module.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Delete the archived logs after backup – turn on or off this feature <ul style="list-style-type: none"> - Delete archived logs that are older than the following days – set the number of day(s) that the archived logs will be deleted when exceeding this number

OpenDirect	
What is this setting about?	Administrator can enable the OpenDirect setting for Windows File backup sets on AhsayOBM and AhsayCB, to support restore of selected files/folder within a compressed or images file without the need to restore the compressed of image file first.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ OpenDirect – enable or disable this feature

Granular Restore	
What is this setting about?	Administrator can enable the Granular Restore setting for VMware ESXi/vCenter and Hyper-V guest VM backup sets, to support restore of selected files/folder within a virtual disk of a guest VM without the need to restore the guest VM file first.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Granular Restore – enable or disable this feature


Compressions	
What is this setting about?	Compressing data before they are backed up brings faster backup and restore time and save storage space on the backup destination. Compression does not apply on Run direct backup sets for Hyper-V and VMware even this feature is on.

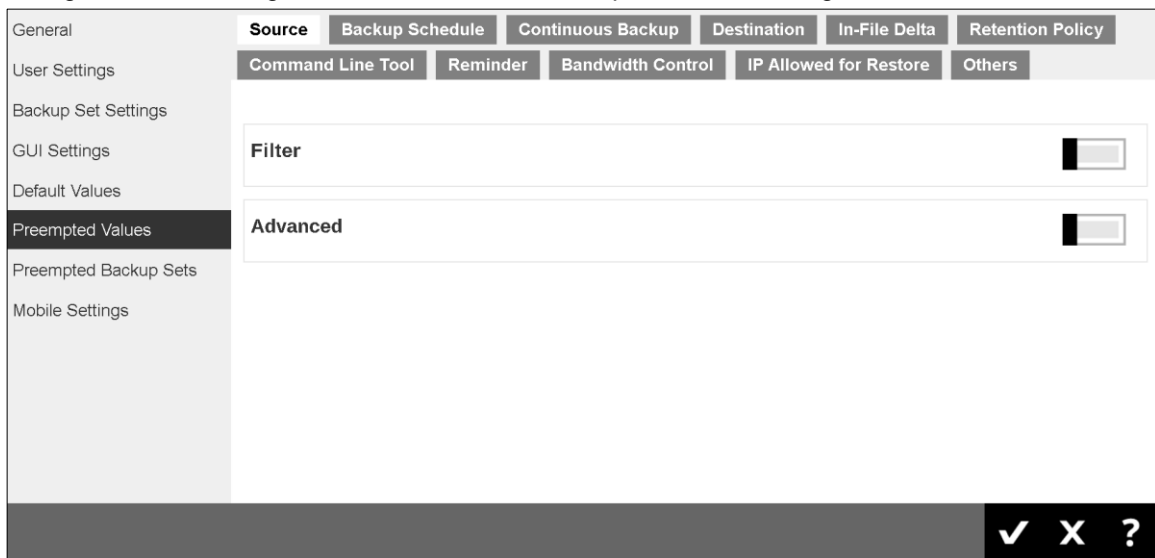
	Administrator can define the default compression type for backup set. Multiple settings can be created in this menu if you wish to define different default compression types for different backup modules.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Select compression type – select the desired compression type among No Compression, Normal and Fast (Compressed size larger than normal)

Encryption	
What is this setting about?	<p>For better security reason, backup users can choose to encrypt their backup data with an algorithm, mode and key of their choice. Encryption does not apply on Run direct backup sets for Hyper-V and VMware even this feature is on.</p> <p>Administrator can define the default encryption setting for backup set. Multiple settings can be created in this menu if you wish to define different default encryption settings for different backup modules.</p>
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Encrypt Backup Data – enable or disable this feature <ul style="list-style-type: none"> - Default (Machine Generated Random) – the system will randomly generate an encryption key - Custom – define your own algorithm, encryption key, method and key length.

Preempted Values

This section allows administrator to define the predefined values for backup users' backup sets. The preempted values set under this setting menu will be applied to the backup sets directly. Backup users can add additional values on top of the preempted values when creating a backup set but **CANNOT** remove the preempted values preset by the system administrator.

All setting items under the Preempted Values tab are disabled by default. Click the  switch on the right of each setting item and then follow the steps below for configuration.



Mode

In all the setting items in the Preempted Values section, there is a **Mode** setting item that contains 3 options on how this preempted values are applied to user defined settings.

- **Prepend** – the preempted values will be applied as the first user defined settings
- **Append** – the preempted values will be applied as the last user defined settings
- **Override** – override all user defined settings

Note

In some preempted value settings, "Override" mode is set as default and cannot be modified, e.g. Reminder, as administrator should take full control of the policy settings. However, prepend and append mode are available for some non-administrator related features, such as backup schedule, where users defined settings can also be considered.

Source

This section defines the preempted backup source values. The following table explains each setting item under the **Source** tab, with a brief description of what the setting is about and all the configurable items.

Filter	
What is this setting about?	Defines the default filter mode, filters which used to include/exclude files in the backup source from performing backup. This filter applies only to File Backup on Windows platform. Creating multiple filter settings is possible.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the filter setting ➤ Apply filters to the backup source – turn this on to configure the filters ➤ Matching pattern - defines the pattern of the file selection, e.g., *.doc, *.png. ➤ For each of the matched files/folders under top directory – define to include or exclude all the files/folder matching the filtering criteria under the top directory ➤ Exclusion / Inclusion – to include (if you have chosen to exclude the matched files) or exclude (if you have chosen to include the matched files) those unmatched files/folder in the backup ➤ Match file/folder names by – you can set the following filtering rules: <ul style="list-style-type: none"> [Simple comparison starts with] Include/Exclude all files/directories with name starting with a certain pattern. Example: <i>You can use B* to match all file with name starting with a B character.</i> [Simple comparison ends with] Include / Exclude all files / directories with name ending with a certain pattern. Example: <i>You can use *.doc to match all files with name ending with .doc (all Word Documents)</i> [Simple comparison contain] Include/Exclude all files/directories with name containing a certain pattern. Example: <i>You can use *B* to match all files with name containing with a B character.</i> [Regular Expression (UNIX-style)] Include/Exclude all files/directories with name matching a regular expression.

	<p>Notes:</p> <ul style="list-style-type: none"> ➤ The pattern of a backup filter is case sensitive. ➤ If multiple patterns are required, please add the pattern one by one e.g.: *.doc and then *.xls <ul style="list-style-type: none"> ➤ How to Apply This Filter – you can choose to apply this filter on “All hard disk drivers” or a selected folder of your choice. ➤ Apply to - apply the filter to the File and/or Folder level
Use Cases	<p><u>Example 1</u> If you want to backup only Word, Excel and PowerPoint documents in your document directory (e.g. C:\My Documents), you should setup your backup filter as follows.</p> <p>Matching pattern = *.doc, *.xls, *.ppt For each of the matched files/folders under top directory = Include them Exclusion = Check Match file/folder names by = Simple comparison end with How to Apply This Filter = This folder only C:\My Documents Apply to = File</p> <p><u>Example 2</u> If you want to backup all files, excluding all *.exe, *.dll and *.tmp, in C:\Application, you should setup your backup filter as follows.</p> <p>Matching pattern = *.exe, *.dll, *.tmp For each of the matched files/folders under top directory = Exclude them Inclusion = Check Match file/folder names by = Simple comparison end with How to Apply This Filter = This folder only C:\Applicaitons Apply to = File</p> <p><u>Example 3</u> If you have already chosen files (all under C:\) from the backup source setting but you want to exclude all images (e.g. *.jpg and *.gif) from your selection, you should setup your backup filter as follows.</p> <p>Matching pattern = *.jpg, *.gif For each of the matched files/folders under top directory = Exclude them Inclusion = uncheck Match file/folder names by = Simple comparison end with How to Apply This Filter = This folder only C:\ Apply to = File</p> <p><i>Please note that the Inclusion setting should not be checked because you have already chosen the desired files to back up and do not want to include all other files (NOT *.jpg, *.gif) under C:\ into the backup set.</i></p>

	<p>Example 4</p> <p>If you want to include everything, except the "log" directory, under C:\Applications into a backup set, you should setup your backup filter as follows.</p> <p>Matching pattern = ^log\$</p> <p>For each of the matched files/folders under top directory = Exclude them</p> <p>Inclusion = check</p> <p>Match file/folder names by = Regular Expression (UNIX-style)</p> <p>How to Apply This Filter = C:\Applications</p> <p>Apply to = Folder</p> <p>Example 5</p> <p>If you want to include all directories named "log" from the backup set files with file name starting with "B" and ending with "*.doc" under C:\My Documents into the backup set, you can use a regular expression of "^B.*\doc\$" to do your selection. The filter backup can then be setup as follows.</p> <p>Matching pattern = ^B.*\doc\$</p> <p>For each of the matched files/folders under top directory = Include them</p> <p>Exclusion = check</p> <p>Match file/folder names by = Regular Expression (UNIX-style)</p> <p>How to Apply This Filter = C:\My Documents</p> <p>Apply to = File</p>
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Advanced	
What is this setting about?	Defines the default advanced settings for backup source, including backup mode, other selected source and deselected source.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Module – module you wish to apply this default setting to ➤ Other Selected Source – define the path of the source, e.g. Windows: C:\My folder; Linux: /home/my folder, to include in the backup set ➤ Deselected Source - define the path of the source, e.g. Windows: C:\My folder; Linux: /home/my folder, to exclude in the backup set.

Backup Schedule

Setting up backup schedule allows backup sets to run automatically at the specified time. This section allows administrator to pre-define default backup schedule(s) for backup users. The following table explains each setting item under the **Backup Schedule** tab, with a brief description of what the setting is about and all the configurable items.

Schedule	
What is this setting about?	<p>Predefine backup schedule(s) for backup sets. Multiple settings can be created in this menu if you wish to pre-define different backup schedules for different backup modules. Within a backup schedule setting, multiple scheduled times can be added.</p>
What are the configurable items?	<p><u>Backup Schedule</u></p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Run scheduled backup for this backup set – to enable or disable the scheduled backup settings you set in this menu <p><u>Manage Schedule</u></p> <ul style="list-style-type: none"> ➤ Name – name of the scheduler ➤ Type – frequency of running the scheduled backup <ul style="list-style-type: none"> - Daily – to run the scheduled backup everyday - Weekly – to run the scheduled backup on the selected days of a week - Monthly – to run the scheduled backup on a specific day in a month, or on a specific day in a specific week. - Custom – to run the scheduled backup on a specific day of your selection ➤ Start backup at – specify a specific time to run the scheduled backup based on the frequency set in the Type menu above. ➤ Stop – set the scheduled backup to stop either <ul style="list-style-type: none"> - Full backup is completed regardless of how much time it takes OR - After the backup has started for the set time (1-24 hr) regardless if the backup is done ➤ Run Retention Policy after backup – enable this feature if you wish the modified or deleted data after backup remains in the backup server for the set number of retention day

Continuous Backup

When the Continuous Backup feature is enabled, a backup job will be triggered whenever a change is made in the backup source. This section allows administrator to define the default continuous backup settings. The following table explains each setting item under the **Continuous Backup** tab, with a brief description of the available settings and all the configurable items. **Continuous Backup is only available on Windows platform.**

IMPORTANT

When setting up the Continuous Backup feature for a backup set, you must run a manual or scheduled backup job first so that the initial files are uploaded your designated backup destination.

Continuous Backup	
What is this setting about?	Predefine the settings and filters to trigger continuous backup, including to exclude system files, frequency of running backup when changes are detected, configure the maximum file size allowed for backup and configure filters to exclude files from backup.
What are the configurable items?	<p><u>Continuous Backup</u></p> <ul style="list-style-type: none">➤ Name – name of the setting item➤ Applied Modules – modules to apply this setting to➤ Backup whenever a change is made – enable or disable the continuous backup feature➤ Exclude system files – enable this feature if you do not want to back up system files. Refer to Appendix J for a full list of system files excluded from the backup set.➤ How often should the backup run – set the frequency of running backup when changes are detected.➤ Only apply to files smaller than – file size that is larger than the set value will not be backed up <p><u>Exclude Filter</u></p> <ul style="list-style-type: none">➤ Name - name of the filter setting item➤ Match file/folder names by – you can set the following filtering rules: [Simple comparison starts with] Include/Exclude all files/directories with name starting with a certain pattern. Example:

	<p><i>You can use B* to match all file with name starting with a B character.</i></p> <p>[Simple comparison ends with] Include / Exclude all files / directories with name ending with a certain pattern. Example: <i>You can use *.doc to match all files with name ending with .doc (all Word Documents)</i></p> <p>[Simple comparison contain] Include/Exclude all files/directories with name containing a certain pattern. Example: <i>You can use *B* to match all files with name containing with a B character.</i></p> <p>[Regular Expression (UNIX-style)] Include/Exclude all files/directories with name matching a regular expression.</p> <p>Notes:</p> <ul style="list-style-type: none"> - The pattern of a backup filter is case sensitive. - If multiple patterns are required, please add the pattern one by one e.g.: *.doc and then *.xls <ul style="list-style-type: none"> ➤ Matching pattern - defines the pattern of the file selection, e.g., *.doc, *.png. ➤ Apply This Filter to all files/folders in – you can choose to apply this filter on “All selected sources” or a selected folder of your choice ➤ Apply to - apply the filter to the File and/or Folder level
Use Cases	<p>Example 1 If you want to back up all files, except all Word, Excel and PowerPoint documents, in your document directory (e.g. C:\My Documents), you should setup your backup filter as follows.</p> <p>Match file/folder names by = Simple comparison end with Matching pattern = *.doc, *.xls, *.ppt Apply this filter to all files/folders in = This folder only C:\My Documents Apply to = File</p> <p>Example 2 If you want to include everything, except the “log” directory, under C:\Applications into a backup set, you should setup your backup filter as follows.</p> <p>Match file/folder names by = Regular Expression (UNIX-style) Matching pattern = ^log\$</p>

	<p>Apply this filter to all files/folders in = This folder only C:\Applications Apply to = Folder</p> <p>Example 3 If you want to exclude all directories named "log" from the backup set files with file name starting with "B" and ending with "*.doc" under C:\My Documents into the backup set, you can use a regular expression of "^B.*\doc\$" to do your selection. The filter backup can then be setup as follows.</p> <p>Match file/folder names by = Regular Expression (UNIX-style) Matching pattern = ^B.*\doc\$ Apply this filter to all files/folders in = This folder only C:\My Documents Apply to = File</p>
Use Cases	<p>Example 1 If you want to back up all files, except all Word, Excel and PowerPoint documents, in your document directory (e.g. C:\My Documents), you should setup your backup filter as follows.</p> <p>Match file/folder names by = Simple comparison end with Matching pattern = *.doc, *.xls, *.ppt Apply this filter to all files/folders in = This folder only C:\My Documents Apply to = File</p> <p>Example 2 If you want to include everything, except the "log" directory, under C:\Applications into a backup set, you should setup your backup filter as follows.</p> <p>Match file/folder names by = Regular Expression (UNIX-style) Matching pattern = ^log\$ Apply this filter to all files/folders in = This folder only C:\Applications Apply to = Folder</p> <p>Example 3 If you want to exclude all directories named "log" from the backup set files with file name starting with "B" and ending with "*.doc" under C:\My Documents into the backup set, you can use a regular expression of "^B.*\doc\$" to do your selection. The filter backup can then be setup as follows.</p> <p>Match file/folder names by = Regular Expression (UNIX-style) Matching pattern = ^B.*\doc\$ Apply this filter to all files/folders in = This folder only C:\My Documents Apply to = File</p>

Destination

This section allows administrator to predefine backup destination for backup sets. The following table explains each setting item under the **Destination** tab, with a brief description of what the setting is about and all the configurable items.

Destination	
What is this setting about?	Pre-define backup destination when backup users create a backup set. Multiple settings can be created in this menu if you wish to define different default destinations for different backup modules.
What are the configurable items?	Destination <ul style="list-style-type: none">➤ Name – name of the setting item➤ Applied Modules – modules to apply this setting to➤ Backup Mode – select the files transfer method during backup<ul style="list-style-type: none">- Sequential – backup files are sent to the backup destination one by one, one after another- Concurrent – multiple files are sent to the backup destination at the same time➤ Maximum concurrent backup destinations (only if you have selected Concurrent as the Backup Mode) – select the maximum number of files allowed for uploading to the backup destination➤ Predefined Destination – select the predefined destination you have configured in the Predefined Destinations Tab section.

In-File Delta

In-file delta technology is an advanced data block matching algorithm with the intelligence to pick up changes (delta) of file content between two files.

Using this algorithm, daily backup of large files over low-speed internet connection is made possible because it requires only the changes of information since the last backup to be sent over (assuming that the full backup of the file has been saved on the backup server already).

This section allows administrator to predefine the In-File Delta settings for backup set. The following table explains each setting item under the **In-File Delta** tab, with a brief description of what the setting is about and all the configurable items.

In-File Delta	
What is this setting about?	Predefine In-File delta setting for backup set. Multiple settings can be created in this menu if you wish to pre-define different in-file delta settings for different backup modules.

<p>What kind of in-file delta type are there?</p>	<p><u>Incremental In-file delta</u></p> <p>Incremental Delta will facilitate ease of backup. The delta is generated by comparing with the last uploaded full or delta file. Delta generated with this method is smaller and uses the least bandwidth. However, for restoration, the full file and all deltas up to the required point-in-time are required to be restored and merged.</p> <p><u>Differential In-file delta</u></p> <p>Differential Delta will facilitate ease of restore. The delta is generated by comparing with the last uploaded full file only. Delta generated with this method will grow daily and uses more bandwidth. However, for restoration, the full file and a single delta is required to be restored and merged.</p>								
<p>What are the configurable items?</p>	<p><u>Destination</u></p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Default Type – type of backup method (Incremental or Differential) <p><u>Advanced settings</u></p> <ul style="list-style-type: none"> ➤ In-File Delta block size – defines the size of block used when detecting changes between last full or delta file and the file to be backed up. <p><u>In-file delta backup with small block size</u></p> <ul style="list-style-type: none"> - Produce a smaller delta file due to a more precise comparison - Require more processing power on the client machine - Comparison may take longer to complete - Require more Java memory <p><u>In-file delta backup with large block size:</u></p> <ul style="list-style-type: none"> - Produce a larger delta file due to a less precise comparison - Require less processing power on the client machine - Comparison will complete faster - Require less Java memory <p>For most cases, 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:</p> <table border="1"> <thead> <tr> <th>File size</th><th>Block size</th></tr> </thead> <tbody> <tr> <td>Smaller than 2GB</td><td>4KB</td></tr> <tr> <td>2GB – 8GB</td><td>8KB</td></tr> <tr> <td>Larger than 8GB</td><td>16KB</td></tr> </tbody> </table> <ul style="list-style-type: none"> ➤ Only apply In-File Delta to files larger than – defines the minimum file size a file to apply the in-file delta setting. If the size of a file to be 	File size	Block size	Smaller than 2GB	4KB	2GB – 8GB	8KB	Larger than 8GB	16KB
File size	Block size								
Smaller than 2GB	4KB								
2GB – 8GB	8KB								
Larger than 8GB	16KB								

	<p>backed up is smaller than the set value, the in-file delta setting will not apply and the whole file will be uploaded to the backup server.</p> <p>It is not necessary to perform In-file delta backup on small files because backing up the whole file does not take long. Backing up the whole file instead reduces the time required to restore the file.</p> <ul style="list-style-type: none"> ➤ Upload full file when either of these conditions is met – a backup of the full file will be performed if the following condition is met: <ul style="list-style-type: none"> - Number of deltas is over – when the number of delta file exceeds the set value - Delta ratio (delta file size / full file size) is over – this setting is to ensure that a full file backup is performed for file with significant changes, as it is preferable to upload a full file instead to reduce the time required to restore the file ➤ Weekly variations for overriding default type – override the default in-file delta setting in the Default Type field on selected day(s) of a week ➤ Yearly variations for overriding default type and weekly variations – override the default in-file delta setting in the Default Type field as well as the setting in the “Weekly variations for overriding default type” section on a selected day in a week based on either of the following selection <ul style="list-style-type: none"> - Day of selected months in yearly variations - select a specific day in a month. On this specified day in the month defined above will the in-file delta variation setting override the default value.
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Retention Policy

Retention policy defines the policies of persistent data management for meeting business data archival requirements. When a backup job is performed, for data that are modified or deleted on the client computer, their existing versions on the backup server (backup records) will be moved into retention area, while newly backed up files will be placed in the current data area.

Specifically, retention policy setting defines how long are the backup records kept in the retention area before they are deleted permanently from the backup server.

This section allows administrator to pre-define the Retention Policy for backup set. The following table explains each setting item under the **Retention Policy** tab, with a brief description of what the setting is about and all the configurable items.

Retention Policy														
What is this setting about?	Pre-define the retention policy for backup sets when they are created. Multiple settings can be created in this menu if you wish to define different default retention policy for different backup modules.													
What are the configurable items?	<p>Destination</p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ How to retain the files in the backup set, which have been deleted in the backup source – choose between Simple and Advanced setting, which is explained in details below. <ul style="list-style-type: none"> - Simple – enter a specific number of day or backup job number. The retained data will be removed from the storage destination permanently after the set number of day or set number of job is met. - Advanced – manage advanced retention policies by applying advanced configurations <table> <tr> <td rowspan="2">Daily</td><td>The past number of days on which different versions of your files are retained</td></tr> <tr> <td>Set the number of day(s) on which the old version of data will be stored</td></tr> <tr> <td rowspan="4">Weekly</td><td>The days within a week on which different versions of your files are retained</td></tr> <tr> <td>Select the day(s) in a week (Monday – Sunday) on which the old version of data will be stored</td></tr> <tr> <td>The number of weeks to repeat the above selection</td></tr> <tr> <td>Enter the number of week(s) for the above setting to repeat</td></tr> <tr> <td rowspan="4">Monthly</td><td>The days within a month on which different versions of your files are retained</td></tr> <tr> <td>Select a day in a month on which the old version of data will be stored. You can either set: <ul style="list-style-type: none"> - An exact day (1-31) or - The (First/Second/Third/Forth/Last) of (Monday-Sunday) </td></tr> <tr> <td>The number of months to repeat the above selection</td></tr> <tr> <td>Enter the number of month(s) for the above setting to repeat</td></tr> </table>	Daily	The past number of days on which different versions of your files are retained	Set the number of day(s) on which the old version of data will be stored	Weekly	The days within a week on which different versions of your files are retained	Select the day(s) in a week (Monday – Sunday) on which the old version of data will be stored	The number of weeks to repeat the above selection	Enter the number of week(s) for the above setting to repeat	Monthly	The days within a month on which different versions of your files are retained	Select a day in a month on which the old version of data will be stored. You can either set: <ul style="list-style-type: none"> - An exact day (1-31) or - The (First/Second/Third/Forth/Last) of (Monday-Sunday) 	The number of months to repeat the above selection	Enter the number of month(s) for the above setting to repeat
Daily	The past number of days on which different versions of your files are retained													
	Set the number of day(s) on which the old version of data will be stored													
Weekly	The days within a week on which different versions of your files are retained													
	Select the day(s) in a week (Monday – Sunday) on which the old version of data will be stored													
	The number of weeks to repeat the above selection													
	Enter the number of week(s) for the above setting to repeat													
Monthly	The days within a month on which different versions of your files are retained													
	Select a day in a month on which the old version of data will be stored. You can either set: <ul style="list-style-type: none"> - An exact day (1-31) or - The (First/Second/Third/Forth/Last) of (Monday-Sunday) 													
	The number of months to repeat the above selection													
	Enter the number of month(s) for the above setting to repeat													

		Quarterly	The day within a quarter on which different versions of your files are retained
			Select a day within a quarter on which the old version of data will be stored. You can either set: <ul style="list-style-type: none"> - An exact day (1-31) or - The (First/Second/Third/Forth/Last) of (Monday-Sunday)
			Months of quarter
			Select the desired combination of months of quarter <ul style="list-style-type: none"> - (January, April, July, October) - (February, May, August, November) - (March, June, September, December)
			The number of quarters to repeat the above selection
		Yearly	Enter the number of quarter(s) for the above setting to repeat
			The day within a year on which different versions of your files are retained
			Select a day within a year on which the old version of data will be stored. You can set the day by using one of the following methods: <ul style="list-style-type: none"> - Select an exact day (1 – 31) in an exact month (January – December) - Select the (First/Second/Third/Forth/Last) of (Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday/Weekday/Weekend) in an exact month (January – December) - Select a day in a week (Monday – Sunday) in an exact week of a year (Week 1 - 53)
			The number of years to repeat the above selection
			Enter the number of year(s) for the above setting to repeat
		Custom	A specific day on which different versions of your files are retained
			Select a day on which the old version of data will be stored. You can set the day by using one of the following methods: <ul style="list-style-type: none"> - Select an exact day (1 – 31) in an exact month (January – December)

			<ul style="list-style-type: none"> - Select the (First/Second/Third/Forth/Last) of (Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday/Weekday/Weekend) in an exact month (January – December) - Select a day in a week (Monday – Sunday) in an exact week of a year (Week 1 - 53)
			Year
			Enter a specific year for the day set above to execute the retention policy

Command Line Tool

This section allows administrator to configure a Pre-Backup or Post-Backup command. Command such as batch file to stop and start an application before and after a backup job is completed, or other command such as to shut down the computer when a backup job is completed can be configured.

The following table explains each setting item under the **Retention Policy** tab, with a brief description of what the setting is about and all the configurable items.

Command Line Tool	
What is this setting about?	Predefine command line to execute before or after a backup is performed. Multiple settings can be created in this menu if you wish to pre-define different command line for different backup modules.
What are the configurable items?	<p>Destination</p> <ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Pre-Backup Command Line Tool – configure the pre-backup command line <ul style="list-style-type: none"> - Name – name of this command line setting. - Working Directory – directory which the pre-backup command will run at. - Command – Enter the pre-backup command to be run ➤ Post-Backup Command Line Tool – configure the post-backup command line <ul style="list-style-type: none"> - Name – name of this command line setting. - Working Directory – directory which the post-backup command will run at. - Command – enter the post-backup command to be run

Reminder

This section allows administrator to enable the backup reminder feature where users will be reminded to run a backup job when they log off or shut down their computers. Reminder feature is only available on Windows platform.

The following table explains each setting item under the **Reminder** tab, with a brief description of what the setting is about and all the configurable items.

Reminder	
What is this setting about?	Pre-define to turn on the reminder so that backup users will be reminded to perform backup when they log off or shut down their computers. Multiple settings can be created in this menu if you wish to define different settings for different backup modules.
What are the configurable items?	Destination <ul style="list-style-type: none">➤ Name – name of the setting item➤ Applied Modules – modules to apply this setting to➤ Remind me to backup during Windows log off or shut down – turn on or off this feature<ul style="list-style-type: none">- Computer name – you can specify the computer's name for this reminder to enable on

Bandwidth Control

This section allows administrator to pre-define the limit for data transfer when performing backup and restore jobs.

Note	
➤	The actual value will be around +/- 5% of the limit value when the bandwidth control set to below 32Mb/s. When the bandwidth control set to above 64Mb/s, the gap between actual value and limit value might be over 5%.
➤	Network stability might influence the transfer rate fluctuation accuracy.

The following table explains each setting item under the **Bandwidth Control** tab, with a brief description of what the setting is about and all the configurable items.

Bandwidth Control	
What is this setting about?	Pre-define the settings on limiting the data transfer rate when performing backup and restore jobs. Multiple settings can be created in this menu if you wish to pre-define different settings for different backup modules.

What are the configurable items?	<p>Destination</p> <ul style="list-style-type: none">➤ Name – name of the setting item➤ Applied Modules – modules to apply this setting to➤ IP Allowed for Restore– configure the IP ranges allowed for restore<ul style="list-style-type: none">- From – restore allowed from this IP value- To - restore allowed up to this IP value
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Others

This section allows administrator to pre-define other configurations for backup sets. The following table explains each setting item under the **Others** tab, with a brief description of what the setting is about and all the configurable items.

Follow Link	
What is this setting about?	Administrator can pre-define whether to turn on the Follow Link feature. When this feature is on, not only the symbolic link or junction point will be restored, the directories and files that the symbolic link or junction point links to will also be restored. This feature is only applicable to File Backup module.
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Follow link of the backup files – check the box to enable this feature

Volume Shadow Copy	
What is this setting about?	<p>Enabling the Volume Shadow Copy option will allow backup of local files that are exclusively opened during the backup process (e.g. Outlook PST file).</p> <p>Some requirements of the Volume Shadow Copy option include:</p> <ul style="list-style-type: none"> - Volume Shadow Copy can only be applied for local drive; exclusively opened file on network shared drive cannot be backed up even with the Volume Shadow Copy option enabled. - Volume Shadow Copy is available on Windows platforms (e.g. Vista / 2008 / 2008 R2 / 2012 / 2012 R2 / 7 / 8 / 10). - The user using the backup application must have administrative privileges to access the Volume Shadow Copy service on a computer. - At least one of the partitions on the machine must be in NTFS format. <p>For more technical information on Volume Shadow Copy, please refer to the following page from Microsoft for details: http://technet.microsoft.com/en-us/library/cc785914(WS.10).aspx</p> <p>Administrator can pre-define whether to turn on the Volume Shadow Copy feature by default. This feature is only applicable to File Backup module.</p>
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Enable Windows' Volume Shadow Copy for open file backup – check or uncheck to enable or disable this feature

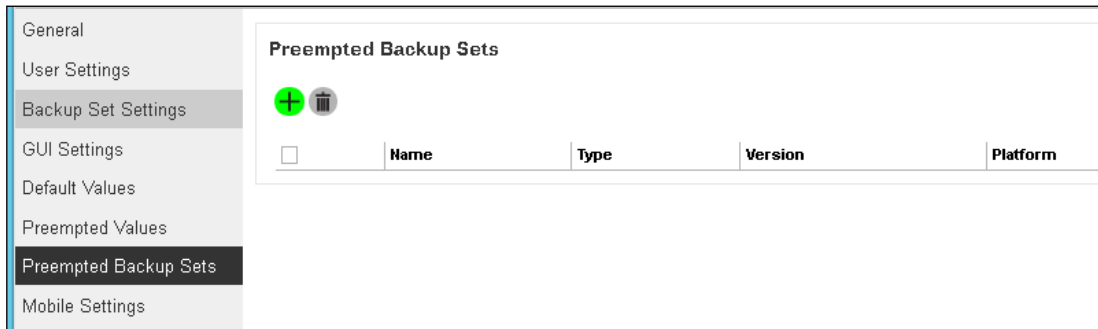
File Permissions	
What is this setting about?	<p>By enabling this option, file permissions of the operating system files will be backed up. File permission defines, for example, the right to view or change a file by the system owner/group/individual.</p> <p>Administrator can pre-define whether to turn on the backup of File Permissions by default .This feature is only applicable to File Backup module.</p>
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Backup files' permissions – check or uncheck to enable or disable this feature

Archived Log Deletion	
What is this setting about?	<p>Administrator can pre-define whether the archived log files will be deleted after backup by default .This feature is only applicable to Oracle Database Server Backup module.</p>
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Delete the archived logs after backup – turn on or off this feature <ul style="list-style-type: none"> - Delete archived logs that are older than the following days – set the number of day(s) that the archived logs will be deleted when exceeding this number

Compressions	
What is this setting about?	<p>Compressing data before they are backed up brings faster backup and restore time and save storage space on the backup destination. Compression does not apply on Run direct backup sets for Hyper-V and VMware even this feature is on.</p> <p>Administrator can pre-define the default compression type for backup set. Multiple settings can be created in this menu if you wish to define different default compression types for different backup modules.</p>
What are the configurable items?	<ul style="list-style-type: none"> ➤ Name – name of the setting item ➤ Applied Modules – modules to apply this setting to ➤ Select compression type – select the desired compression type among No Compression, Normal and Fast (Compressed size larger than normal)

Preempted Backup Sets

This section allows you predefine a backup set that will be run a default backup set for backup user with this policy group setting. Backup user **CANNOT** remove this preempted backup set from their backup job once it is preset by the system administrator.

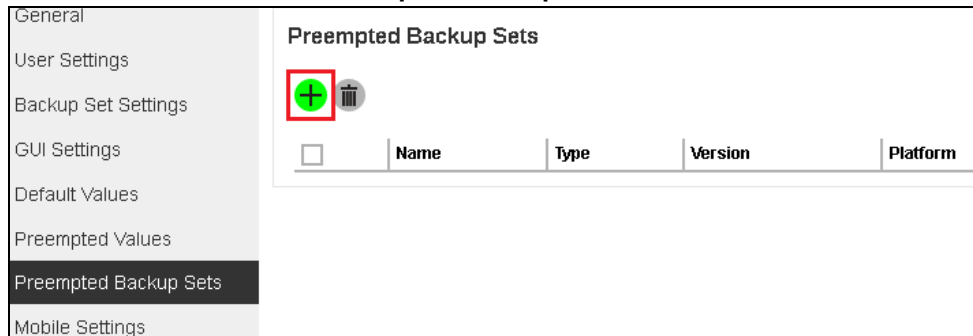


The screenshot shows the 'Preempted Backup Sets' section in the backup software interface. On the left is a sidebar menu with options: General, User Settings, Backup Set Settings, GUI Settings, Default Values, Preempted Values, Preempted Backup Sets (highlighted), and Mobile Settings. The main area is titled 'Preempted Backup Sets' and contains a green plus icon and a trash icon. Below these is a table with columns: Name, Type, Version, and Platform. The table is currently empty.

Create a preempted backup set

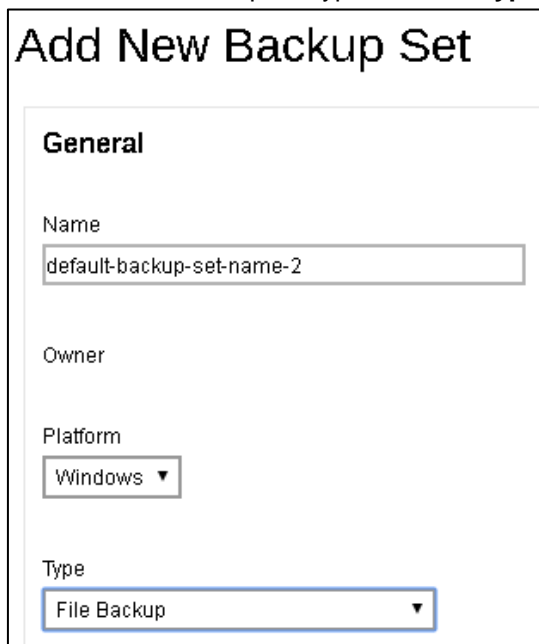
Follow the steps below to create a preempted backup set

1. Click the **+** icon under the **Preempted Backup Sets** section.



This screenshot is similar to the previous one, but the green plus icon in the 'Preempted Backup Sets' section is highlighted with a red square, indicating where to click to create a new backup set.

2. Enter the **Name** of the new backup set, the **Platform** on which the backup set will run on, and select the backup set type from the **Type** dropdown box. |



The screenshot shows the 'Add New Backup Set' dialog box. It has a title bar 'Add New Backup Set' and a 'General' tab. Inside the tab, there are four fields: 'Name' with the text 'default-backup-set-name-2', 'Owner' (empty), 'Platform' with a dropdown menu showing 'Windows', and 'Type' with a dropdown menu showing 'File Backup'.

The choices for Platform

- ▶ Windows
- ▶ Mac
- ▶ Linux

The choices for backup set types

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

In our example, the new backup set is called **default-backup-set-name-2** which is a File Backup type that will be run on Windows.

Click the **Next (->)** button at the bottom right corner of the screen to continue.

3. Specify the backup source for the new backup set. The selection items of this page varies depending on the backup set type you have chosen. Below is an example of creating a File Backup set.

Add New Backup Set

Backup Source

Common Files and Folders

☐ Desktop

☒ Documents

☐ Favourites



☐ Outlook



☐ Outlook Express



☐ Windows Mail

☐ Windows Live Mail

4. You can apply filters to the backup source, select other backup source or deselect backup source. Click to get redirected to the relevant section in the previous chapter for configurations details.


Apply filters to the backup source

☐



Other Selected Source

☐

Deselected Source

☐

5. Click the **Next (->)** button at the bottom right corner of the screen to continue.
6. If necessary, add a Backup Schedule for this backup set by sliding the **Run scheduled backup for this backup set** option to the right and clicking the **+** button.





Add New Backup Set

Run scheduled backup for this backup set

Manage schedule


<input type="checkbox"/>	Name	Type
<input type="checkbox"/>	Backup Schedule	Daily

Run scheduled backup on computers named



- Enter the information of the new backup schedule you want to add. Click the **Add (+)** button at the bottom right corner of the screen to continue.

Backup Schedule

Details

Name
Backup-Schedule-1

Type
Daily

Start backup at
08 : 00

Stop
until full backup completed

☐ Run Retention Policy after backup

+ **x** **?**

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

Click the **Next (->)** button at the bottom right corner of the screen to continue.

Add New Backup Set

Run scheduled backup for this backup set

Manage schedule

	Name	Type
<input type="checkbox"/>	Backup Schedule	Daily
<input type="checkbox"/>	Backup-Schedule-1	Daily

Run scheduled backup on computers named
*



← **→** **x** **?**

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

Add New Backup Set

Destination

Backup Mode
Sequential ▾

Predefined Destination
 

<input type="checkbox"/>	Name	Destination Storage	Info	Quota
--------------------------	------	---------------------	------	-------



← → X ?

- 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 the **Add (+)** button.

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

Add Predefined Destination

Add predefined destination to this backup set below. If there are no predefined destinations created, you need to go to "AhsayCBS > Backup Server > Basic > Predefined Destination" and create the appropriate destinations first.



<input type="checkbox"/>	Name	Destination Storage	Info	Quota
<input type="checkbox"/>	Alans Storage		Microsoft Account:	10G
<input type="checkbox"/>	Group Storage		Dropbox Account:	500G


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

Add New Backup Set

Destination

Backup Mode
Sequential ▾

Predefined Destination
 

<input type="checkbox"/>	Name	Destination Storage	Info	Quota
<input type="checkbox"/>	Group Storage		Dropbox Account:	Unlimited

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.

Click the **Next** (->) button at the bottom right corner of the screen to continue.

8. Select to enable or disable to encrypt the backup data. If you choose to enable this feature, you can select either **Default** or **Custom** for the Encryption Type. Refer to [Others](#) section under the Default Values section for details on configuration.
9. 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 the **Add** (+) button at the bottom right corner of the screen to continue.


Add New Backup Set

Windows User Authentication

Domain Name (e.g. ahsay.com) / Host Name

User name

Password

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

General

User Settings

Backup Set Settings

GUI Settings



Default Values



Preempted Values

Preempted Backup Sets


Mobile Settings

Preempted Backup Sets



<input type="checkbox"/>	Name	Type	Version	Platform
<input type="checkbox"/>	default-backup-set-name-2		--	

Important

If you do not click , your new backup set will not be saved.

Mobile Settings

This section allows administrator to configure settings for AhsayMOB backup users.

General

User Settings

Backup Set Settings

GUI Settings

Default Values

Preempted Values

Preempted Backup Sets

Mobile Settings

Destinations Visible to Users

Encryption Key

Default Values

Backup Source Settings

Backup Schedule Settings

✓ X ?

Destinations Visible to Users



There are two kinds of destinations backup users can choose from when creating a backup set, they are the Predefined Destination and Standard Destination. Only the destinations selected in this menu will be available for backup users to choose from when they are creating a backup set.

Below is a brief explanation on the differences between the Predefined Destination and Standard Destination.

Predefined Destination vs Standard Destination

- ➊ **Predefined Destination** - The predefined destination can be a single storage destination on the local drive where CBS is installed, mapped drive, cloud storage or FTP server, or a destination pool with a mix of storage options mentioned above. Before you can select a predefined destination in this menu, it must first be configured under the **System Settings > Backup > Predefined Destinations**. Refer to [Predefined Destinations Tab](#) for details on configuration.
- ➋ **Standard Destination** - Except for the AhsayCBS storage option, all other storage options under the Standard Destination belong to the backup users, whether it could be a single storage destination on the mapped drive, cloud storage or FTP server, or a destination pool with a mix of storage options mentioned above.

To configure the Predefined Destination

1. Turn on the  switch on the right under the **Destinations Visible to Users** section.
2. Click on the  button under the **Predefined Destination** section.






Predefined Destination




 

<input type="checkbox"/>	Name	Destination Storage	Info	Quota	Run Direct
--------------------------	------	---------------------	------	-------	------------



3. Select the desired destination option, which has been defined in the **System Settings > Backup > Predefined Destinations** menu, by checking the box on the desired destination item.

Add Predefined Destination

<input type="checkbox"/>	Name	Destination Storage	Info
<input type="checkbox"/>	Alans Storage		Microsoft Account:
<input type="checkbox"/>	Group Storage		Dropbox Account:
<input type="checkbox"/>	My-storage		Google Account:
<input type="checkbox"/>	GoogleDrive-1		Google Account:
<input type="checkbox"/>	AC_LCD2		Google Account:

4. Click the  button to confirm adding the predefined destination.
5. If you have multiple predefined destinations to add, repeat steps 3 -4 until all desired destinations have been selected.
6. Click the  and  buttons at the bottom of the page to confirm.




To configure the Standard Destination

1. Turn on the  switch on the right under the **Destinations Visible to Users** section.
2. Click on the  button under the **Standard Destination** section.

Standard Destination
☐ Customize application name
 


3. Select the desired storage option from the drop-down menu as shown below.

Standard Destination
Local / Mapped Drive / Removable Drive ▾
Local / Mapped Drive / Removable Drive
阿里雲
CTYun
Amazon Cloud Drive
Amazon S3
AWS S3 Compatible Cloud Storage
Google Cloud Storage
Google Drive
Microsoft Azure
OneDrive
OneDrive for Business
Rackspace
OpenStack
Dropbox
FTP
SFTP
Destination pool
AhsayCBS

4. Click the  button to add the selected standard destination storage.
5. If you have multiple destination storages to add, repeat steps 3 – 4 until all desired storages have been selected.
6. Click the  and  buttons at the bottom of the page to confirm.

Encryption Key

Once you enabled the encryption recovery option, the encryption key file is uploaded to the backup server. In case the user forgot the encryption key, you can still contact us to have it recovered. The recovered encryption key will be sent directly to the email address registered on the user account. Refer to the [Encryption key](#) section for further details.

Encryption Key 
☒ Upload encryption key after running backup for recovery

Default Values

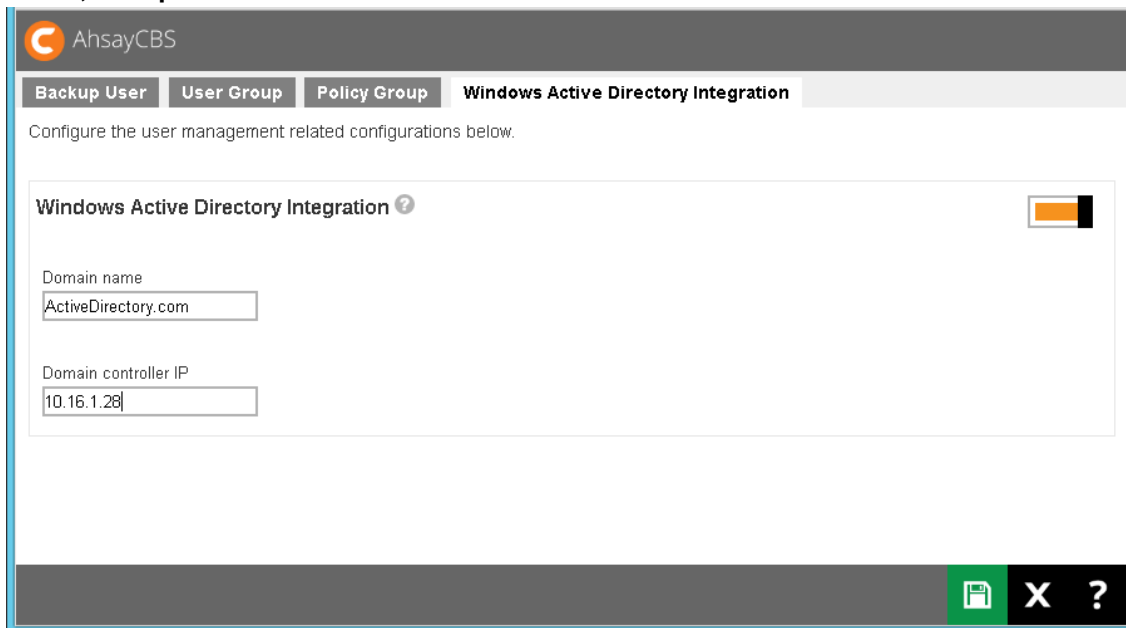
You may configure the default values of the following two options which will apply to the AhsayMOB backup sets.

Backup Source Settings	
Mode	<p>Read Only – backup users can only read the backup source settings set by the system administrator but CANNOT edit the settings.</p> <p>Editable – backup users will be able to edit the settings on their own during the backup set creation process</p>
Backup Source	<p>Select the backup source type from the following choices:</p> <ul style="list-style-type: none"><input type="radio"/> Audio*<input type="radio"/> Contact<input type="radio"/> Photo<input type="radio"/> SMS*<input type="radio"/> Video<input type="radio"/> WhatsApp* <p>*Only available for AhsayMOB installed on the Android platform</p>

Backup Schedule Settings	
Mode	<p>Read Only – backup users can only read the backup source settings set by the system administrator but CANNOT edit the settings.</p> <p>Editable – backup users will be able to edit the settings on their own during the backup set creation</p>
Backup on these days of the week	<p>Backup on these days of the week - select the days(s) in a week when you wish to perform backup (select from Sun to Sat)</p> <p>Start backup at – select a specific time when backups will be performed on the days you have selected from the previous setting item</p>

Manage Windows Active Directory Integration



The following shows the Windows Active Directory Integration tab under **Backup / Restore > Users, Groups & Policies**.



The screenshot shows the AhsayCBS web interface. At the top, there's a header with the AhsayCBS logo and a navigation bar with tabs: Backup User, User Group, Policy Group, and Windows Active Directory Integration. Below the tabs, a message says "Configure the user management related configurations below." The main content area is titled "Windows Active Directory Integration" with a help icon. It contains two input fields: "Domain name" with the value "ActiveDirectory.com" and "Domain controller IP" with the value "10.16.1.28". On the right side of the configuration area, there is a toggle switch that is currently turned off (orange). At the bottom right of the page, there are three buttons: a green "Save" button, a red "X" button, and a blue "?" button.

When this feature is enabled and AhsayCBS fails to authenticate a user logon using its own records, a user authentication will be dispatched to Windows Active Directory automatically. This means that if an AD is presented in the network, it is only required to create a user account once in the Windows Active Directory. The same user account can also be used on the AhsayCBS server. This is because AhsayCBS will create this user account automatically after authenticating this logon using AD. The user account created will be of the type **Paid** and of backup client **AhsayACB** (unless the user logon using AhsayOBM).

To enable and configure the Manage Windows Active Directory Integration feature

1. Click the  switch on the right to turn on this feature.
2. Enter the Domain name and Domain controller IP of the machine where the active directory is hosted.
3. Click the  button at the bottom of the page to confirm.

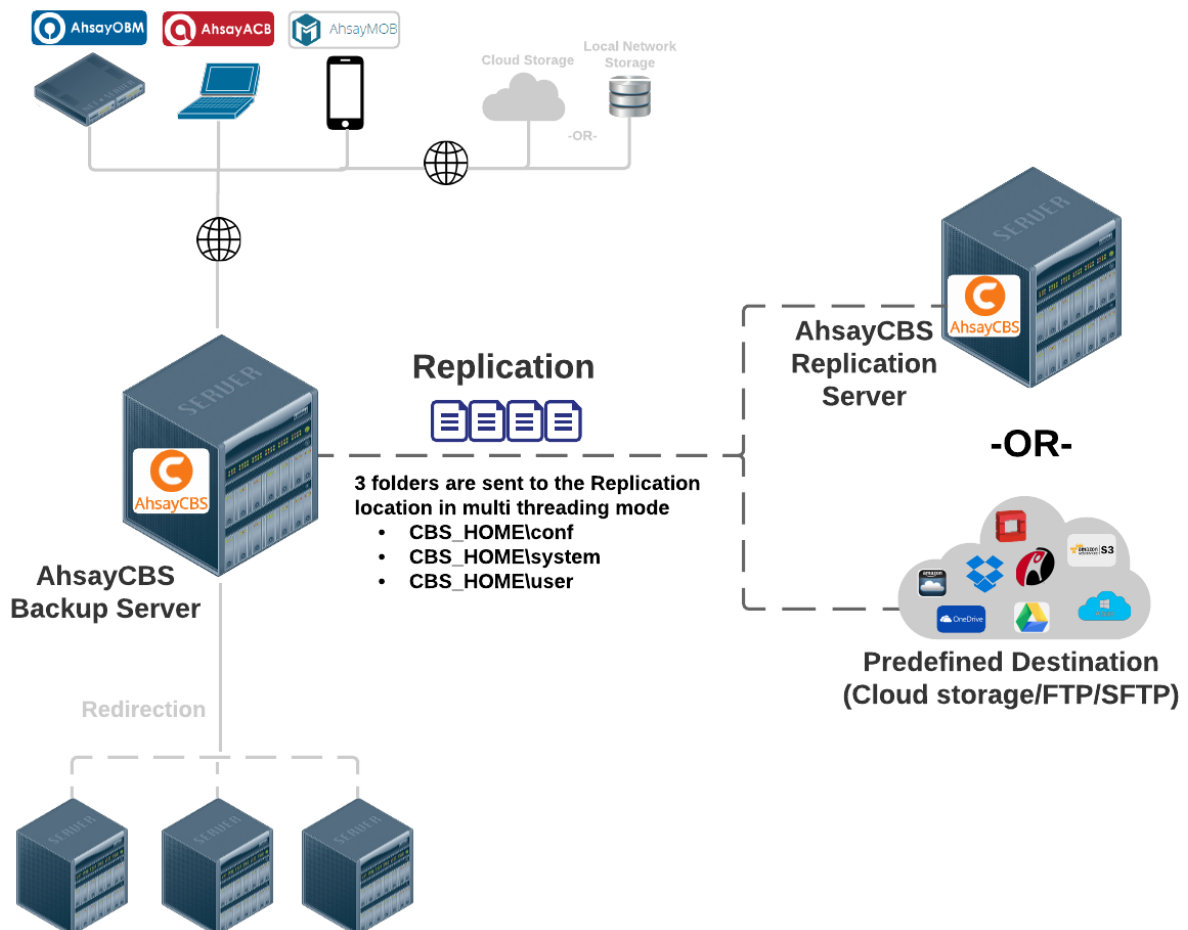
7 Replication

Overview

What is Replication?

AhsayCBS replication server provides an additional layer of data protection by providing an offsite backup store for synchronizing data from either a single or multiple AhsayCBS servers to provide high availability for your business needs. The replication feature is specially designed for replicating user home data hosted physically on AhsayCBS to either another AhsayCBS (Replication Server) or a predefined destination (e.g. cloud storage, FTP/SFTP or local/network storage) configured in the AhsayCBS backup server. The replication process is close to real-time and therefore can reduce the possibilities of significant data loss in the event of an AhsayCBS server outage. In case the AhsayCBS backup server is down, the replication server can be quickly converted into a backup server with minimal down time.

This feature is designed to provide replication services for AhsayCBS only and it does not provide general replication service for other files within the system. This means that you cannot use AhsayCBS replication to replicate your Windows/Linux/Unix system to another machine.



What technology is used for Replication?

During the **Resync** stage of the replication process (refer to [How does Replication Work](#) below for details), snapshot images of users' backup sets will be created and then sent to the replication server. By utilizing the snapshot image technology, the data on the backup server can be replicated in a rather short time and therefore close to real-time replication is made possible.

By utilizing the multi-threading technology, replication can now be processed faster than the traditional single thread replication. Refer to [Multiple Threads Replication](#) for further details.

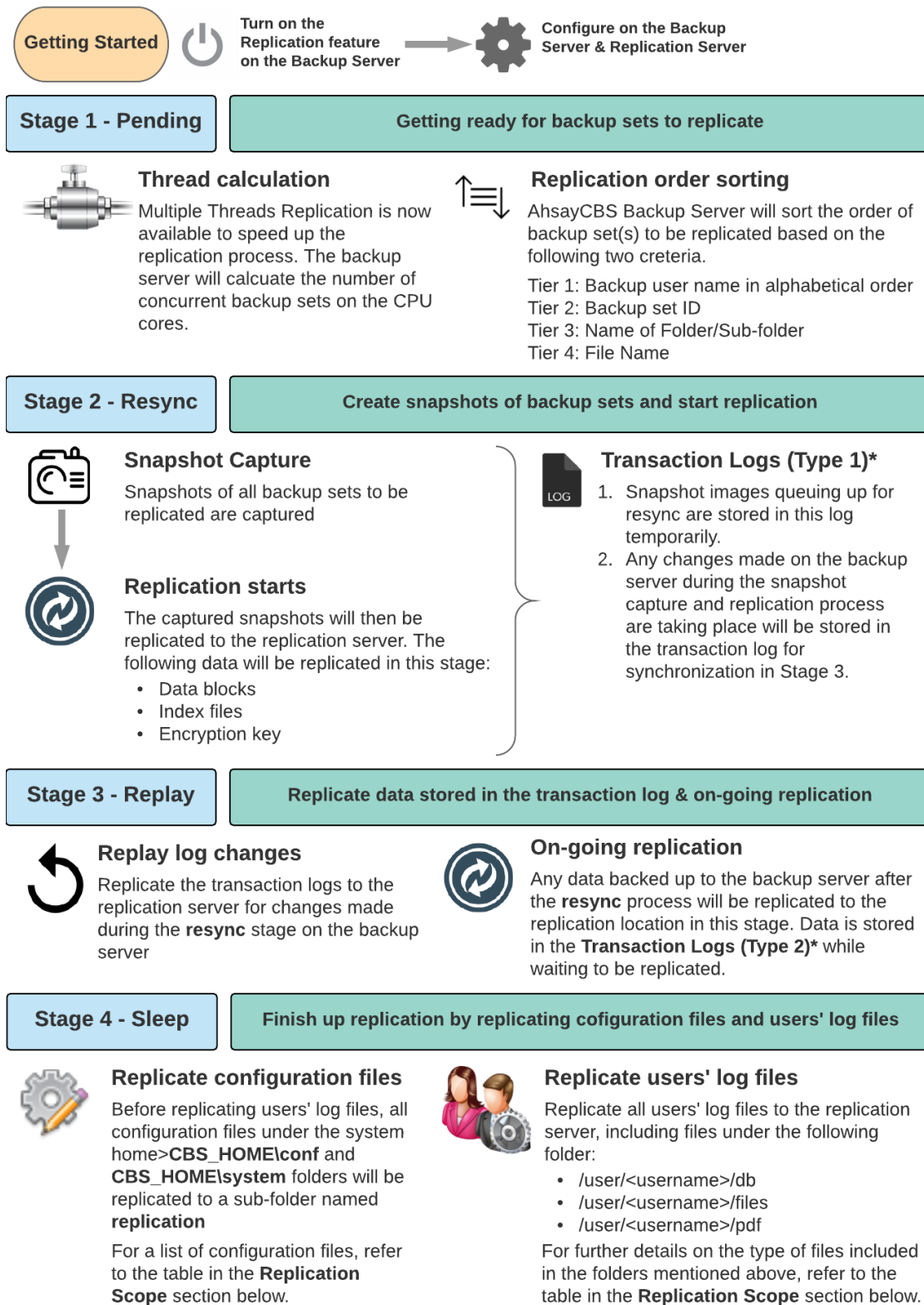
Differences between v6 and v7 on Replication

Since AhsayCBS v7, the replication service has been revamped to empower you with a more reliable and secure replication experience. The table below explains the major feature differences between v6 and v7 on replication.

	Version 6	Version 7
Multi Threads Replication	Replication process is performed over single thread mode which takes longer time to complete.	The replication process is performed over multi threads mode where multiple backup sets are sent to the replication location concurrently. The number of threads for replication is also configurable by the backup user.
Support Replication to Cloud Storage	Only replication to AhsayRPS is possible.	Supports replication to either another AhsayCBS server or cloud storage (as defined in the predefined destination).
Replication Port	A dedicated port has to be defined for replication receiver to perform replication.	Replication is performed via the http/https (ports 80 and 443 by default) defined on AhsayCBS. No additional ports are required.
Real-time Monitoring Progress	Real-time replication progress cannot be monitored.	The real-time replication progress of each backup set can now be monitored on the AhsayCBS web console.
Replication of Individual Backup Sets Only	User Level - all backup sets from all backup users must be replicated when the replication feature is turned on.	Backup Set Level - replication of only selected backup sets is now possible.

How does Replication Work

Replication runs in 4 stages, namely **Pending**, **Resync**, **Replay** and **Sleep**. Refer to the diagram below for an overview of the replication process.



* For more details on the differences between Transaction Logs Type 1 and Type 2, refer to [Transaction Log Location](#).

Replication Scope

The following three folders on the local file system are included in the replication process.

IMPORTANT

1. Please be reminded that **ALL** 3 folders will be **CRITICAL** and **REQUIRED** if you need to rebuild AhsayCBS from scratch, or to recover system settings.
2. Only user data hosted physically on AhsayCBS will be replicated. Local drive includes, for example, local hard disk, mapped network drive, removable drive, external storage device connected to AhsayCBS with UNC path, etc. Certain types of external storage connection, for example FTP/SFTP, are not regarded as local drive even if it is connected through LAN, and therefore will not be included for replication.

🔹 CBS_HOME\conf

The table below shows a list of files included in this folder.

Server Configuration	
Path	Description
/conf/server.xml	Connector setting file
/conf/afc.opt /conf/cbs.opt	CBS option files
/conf/cbssvc.ini	Runtime setting file
/conf/ca.crt /conf/ssl.crt /conf/ssl.key	Default certificate files
/conf/cbs.json	CBS setting files
/conf/lfsConfig.xml	Redirector configuration files
CBS Configuration	
Path	Description
/conf/obs.json	Backup Server setting files
/conf/lic.json /conf/license.xml	License files
/conf/cbs.opt	CBS/OBS option files
/conf/autoUpdate.bdb	Autoupdate index
/conf/rpsSend.xml	Replication configuration files
/conf/users.xml	Users' profile

RPS Configuration	
Path	Description
/conf/rps.xml /conf/rpsRecv.xml /conf/rps-recv.json	Replication configuration files
RDR Configuration	
Path	Description
/conf/rdr.xml /conf/rdr.json	Redirector configuration files
/conf/rdr-lic.json /conf/rdr-license.xml	License files
Others	
Path	Description
/conf/Branding/*. *	Branding directory
/conf/Backup/*. *	Auto Save snapshot file

🔗 CBS_HOME\system

The table below shows a list of files included in this folder.

Group Policy Settings	
Path	Description
/system/obs/policies/userGroup.xml	User group definition
/system/obs/policies/policyList.xml	Policy group definition

🔗 CBS_HOME\user

The table below shows a list of files included in this folder.

CBS User Profile	
Path	Description
/user/%username%/db	<p>This sub-folder contains files with the following info:</p> <ul style="list-style-type: none"> ➤ Backup logs of all backup sets ➤ All logs and statistics records of all backup sets created on different client locations ➤ Records of email notification for backup/restore/setting change ➤ Restore logs ➤ Monthly storage record of each backup set ➤ Daily activities log
/user/%username%/files	<p>This sub-folder contains info files for all backup sets, with the following info:</p>

	<ul style="list-style-type: none"> ➤ Backup set name ➤ Backup set ID ➤ Backup set type ➤ Version of the client's machine running the backup set
/user/%username%/pdf	This sub-folder contains all backup and restore reports in pdf format
/user/%username%/%backup set ID%	This sub-folder contains files with the following info: <ul style="list-style-type: none"> ➤ Data blocks and index file of all backups ➤ Encryption key file (if uploaded) ➤ Replication snapshots (if applicable)

Coexistence of v6 and v7 Formats Backup Data

When you have enabled replication for v6 backup sets on AhsayCBS v7, the backup data will be replicated to your replication destination in v6 data format. If, afterwards, a v7 upgrade of the AhsayOBM/AhsayACB is done and backup is performed for those backup sets, the backup data will be produced and replicated in v7 format. In that case, there will be two sets of backup data stored for the same backup set in separate locations under the **CBS_HOME\user**. The following illustrations show the location where the v6 and v7 format backup data stored.

➤ v7 format backup data

Backup set ID – unique ID for individual backup set

Name	Date modified	Type
1490777956899	4/10/2017 10:12 AM	File folder
1490778216015	3/29/2017 6:09 PM	File folder
1490780883458	3/29/2017 6:09 PM	File folder
db	4/7/2017 3:00 PM	File folder
files	3/29/2017 5:48 PM	File folder
pdf	3/29/2017 5:16 PM	File folder

Data blocks folder

Name	Date modified	Type
blocks	4/7/2017 3:59 PM	File folder
settings	4/7/2017 2:58 PM	File folder
Snapshots	4/10/2017 10:12 AM	File folder
v6Migrate.csv	4/7/2017 2:59 PM	CSV File

A new folder created every time when a backup is run, indicated by date and time in the folder name

Name	Date modified	Type
2017-03-29-17-01-07	4/7/2017 2:59 PM	File folder
2017-04-07-14-59-01	4/7/2017 3:00 PM	File folder
2017-04-07-15-55-06	4/7/2017 3:55 PM	File folder
2017-04-07-15-58-32	4/7/2017 3:58 PM	File folder
2017-04-07-15-59-16	4/7/2017 3:59 PM	File folder
index.b2b.91600.15b476ccefc.cgz	4/7/2017 3:59 PM	CGZ File
index.xml.3cb.15b476ccefc.cgz	4/7/2017 3:59 PM	CGZ File
index-s0j00.100.15b476ccf0b.cgz	4/7/2017 3:59 PM	CGZ File
index-s0i0.fnl.138.15b4736bd01.cgz	4/7/2017 3:00 PM	CGZ File

Data block in v7 format

Name	Date modified	Type	Size
000000.bak	4/7/2017 2:59 PM	BAK File	4,257 KB
000001.bak	4/7/2017 2:59 PM	BAK File	32,768 KB
000001_000001.bak	4/7/2017 2:59 PM	BAK File	32,768 KB
000001_000002.bak	4/7/2017 2:59 PM	BAK File	32,768 KB
000001_000003.bak	4/7/2017 2:59 PM	BAK File	32,768 KB
000001_000004.bak	4/7/2017 2:59 PM	BAK File	32,768 KB
000001_000005.bak	4/7/2017 2:59 PM	BAK File	12,960 KB
000002.bak	4/7/2017 2:59 PM	BAK File	1,184 KB

➤ **v6 format backup data**

Under the files folder

Name	Date modified	Type
1490777956899	4/10/2017 10:12 AM	File folder
1490778216015	3/29/2017 6:09 PM	File folder
1490780883458	3/29/2017 6:09 PM	File folder
db	4/7/2017 3:00 PM	File folder
files	3/29/2017 5:48 PM	File folder
pdf	3/29/2017 5:16 PM	File folder

Backup set ID – unique ID for individual backup set

Name	Date modified	Type
1490777956899	4/7/2017 3:01 PM	File folder
1490778216015	4/7/2017 6:01 AM	File folder
1490780883458	4/7/2017 6:01 AM	File folder

Backup data stored under the **Current** folder

Name	Date modified	Type
Current	3/29/2017 5:01 PM	File folder
index.bdb	4/7/2017 3:01 PM	BDB File
info.xml	4/7/2017 4:00 PM	XML Document
r-index.bdb	4/7/2017 3:01 PM	BDB File

Name	Date modified	Type
0x00	3/29/2017 5:01 PM	File folder
0x0b	3/29/2017 5:01 PM	File folder
0x0c	3/29/2017 5:01 PM	File folder
0x0f	3/29/2017 5:01 PM	File folder
0x01	3/29/2017 5:01 PM	File folder
0x1b	3/29/2017 5:01 PM	File folder
0x1c	3/29/2017 5:01 PM	File folder

Note

When data migration for v6 data is completed and AhsayCBS has replicated the v6 backup data, the v6 data will be deleted from both the backup server and replication server.

Transaction Log Location

Transaction log is a location storing backup data temporarily before they are enter the replication cycle mentioned in [How does Replication work](#).

There are two different kinds of transaction logs which are located separately under the AhsayCBS folder. Refer to the information below for further elaboration.

Type 1 – transaction log stored in USER HOME

Location
%USER_HOME%/BACKUP_SET_ID%/rps/{DELETE_TIME%.LOG_SEQ%}
What kind of transaction log does it store?
This folder stores the transaction log entries produced during the Stage 2 – Resync of the replication process. In specific, the transaction logs are the changes made on the backup server during the snapshot capture and replication process are taking place. This kind of data will only be replicated to the replication location in Stage 3 – Replay .

Type 2 – transaction log stored in SYSTEM HOME

Location
%SYSTEM_HOME%/USER_ID%/BACKUP_SET_ID%/rps/replay-XXXXXX.log
What kind of transaction log does it store?
This folder stores the transaction log entries produced in Stage 3 - Replay mode where it stores data from the backup server pending for replication to the replication location in the on-going replication process.

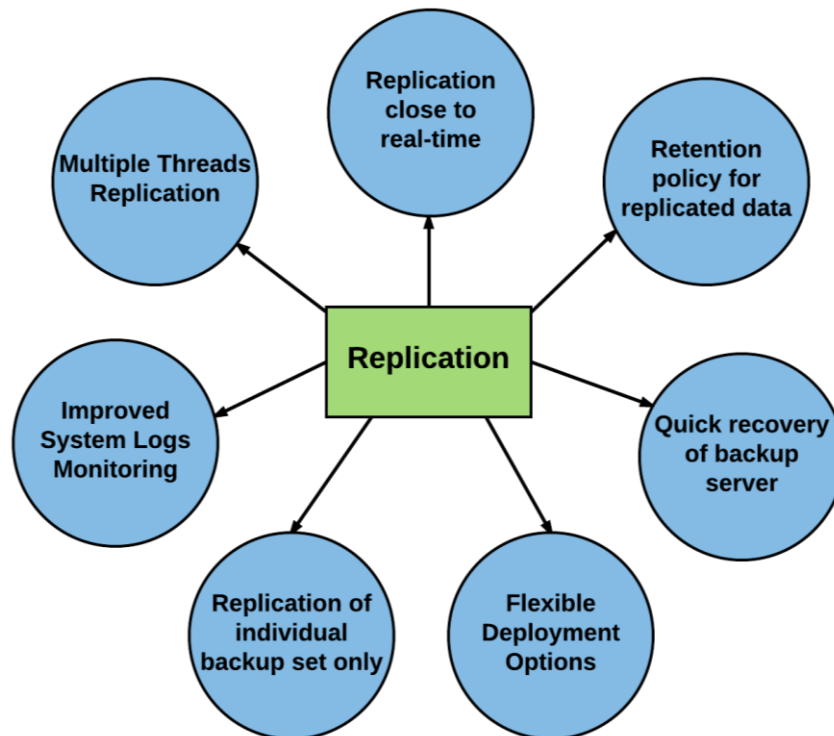
Replication Order

Replication is performed in the order of the tiers as shown in the table below.

Tier 1	Backup User Name
Tier 2	Backup Set ID
Tier 3	Name of Folder/Sub-folder
Tier 4	File Name

Within each tier, the order of replication is performed according to the standard defined by the **American Standard Code for Information Interchange (ASCII)**, refer to <http://www.ascii-code.com/> for details of the order.

Benefits of using Replication?



Multiple Threads Replication

1. From version 7.5.0.0 AhsayCBS has a new feature to offer multiple threads replication. This is an enhanced feature which speeds up the replication by allocating a process thread to handle a backup set's replication and to ensure the replication did not have a negative impact on the overall performance of AhsayCBS backup server. The number of concurrent backup sets to handle will be proportional to the number of CPU cores which is calculated by the following formula.

$$\text{Number of concurrent backup set to replicate} = \text{INT} ((N+1)/2)$$

Note

INT is the function to calculate the integer value, while **N** is the number of cores in the CPU. For example, an AhsayCBS server with a 16 core CPU, up to 8 concurrent replication threads can be configured.

For replication of v6 backup sets on AhsayCBS v7, only single thread replication is supported.

The number of backup sets to replicate concurrently can also be configured by the backup user. Refer to [Setting the Number of Backup Sets to Replicate Concurrently](#) for further instructions.

2. From AhsayCBS v7.13.0.6 or above, for underutilized AhsayCBS backup servers running on high performance hardware and storage configurations, with spare network bandwidth capacity, there is an option to increase the maximum number of replication threads equal to **N**, the total number of CPU cores. For example, an AhsayCBS server with a 16 core CPU, up to 16 concurrent replication threads can be configured.

Warning

Please consider carefully before increasing the maximum number of concurrent replication threads on your AhsayCBS backup server. As this change could have a negative impact on your AhsayCBS backup server and therefore your backup service, for example:

- The AhsayCBS backup server could become unresponsive or sluggish.
- Slow AhsayOBM/AhsayACB backup/restore performance.
- Your AhsayOBM/AhsayACB clients may be unable to connect to the backup server, resulting in missed backups.

The AhsayCBS replication server may become overloaded if it is unable to process the increased number of threads and data sent from the AhsayCBS backup server.

Example:

i. Assumptions:

- ⦿ AhsayCBS v7.13.0.6 or above is installed.
- ⦿ AhsayCBS Java heap size setting.

Increasing the number of concurrent replication threads will result in increased Java memory usage. As a general rule of thumb, twice as many replication threads will utilize twice as the amount of Java memory. Therefore, it is highly recommended to increase your Java heap size setting before using a higher replication thread setting, if the peak Java memory usage on your AhsayCBS server is over 50% of the maximum Java heap size setting. (The peak Java memory usage can be obtained from **[Monitoring] > [Dashboard] > [Memory]**)

For example:

- If current maximum Java heap setting is 4096M and the peak Java memory usage exceeds 2048M, then you should consider increasing the maximum Java heap size up to 8192M.
- If current maximum Java heap setting is 4096M and the peak Java memory usage is only 1500M, you may not need any maximum Java heap size adjustment in the short term.

Please refer to the following link to check about the details of how to modify the Java heap size of AhsayCBS [FAQ: How to modify the Java heap size of AhsayCBS?](#)

- ⦿ AhsayCBS installation path: %CBS_INSTALL_PATH%
 - Windows: C:\Program Files\AhsayCBS
 - Linux/Unix: /usr/local/cbs
 - AhsayUBS: /ubs/mnt/eslsfw/obsr

ii. Steps:

- ⦿ Shutdown the AhsayCBS service.

- Using a text editor open the `%CBS_INSTALL_PATH%/conf/cbs.opt` file
- Add the following setting to the end of the file and save:
`com.ahsay.cbs.obs.config.Index.RepMaxThreads=true`
- Restart the AhsayCBS service.
- Login to the AhsayCBS web management console.

Go to **[Replication] > [Sending Data]** and click on the “**No. of backup sets to replicate concurrently**” and select the number of replication threads you wish to configure.

Example: An AhsayCBS backup server with 16 core CPU

The screenshot shows the AhsayCBS web management console. The 'Replication' section is active. Below the header, there is a note about replicating data to the cloud or a Receiver. The main configuration area is titled 'Replicate backed up data to another server or predefined cloud storage'. It includes a radio button for 'To another AhsayCBS'. Below this, there are input fields for 'Host Name' (with a placeholder 'target.your-company.com'), 'Port (SSL)' (with a value of '443'), 'Replicate User Name', and 'Replicate User Password'. A red box highlights a dropdown menu labeled 'No. of backup sets to replicate concurrently'. The dropdown menu is open, showing options from 'Auto' to '16'. The 'Auto' option is currently selected.

Improved System Logs Monitoring

The Replication Logs section in the AhsayCBS console provides a consolidated view of all replication sending and receiving logs to allow a one-stop monitoring of the replication activities.

Replication Close to Real-Time

The synchronization process does not require stopping or interrupting any backup/restore operations. As the replication module will be replicating the backup data in 4 modes, pending, sleep, resync and replay mode. These 4 modes are used to identify the mode of the replicating backup.

- **Pending** — backup set pending for replication
- **Resync** — responsible to create a snapshot of the current system configuration and user backup files
- **Replay** — replay the changes that happened during the resync mode
- **Sleep** — Backup sets that have finished replicating the backup data

When new backup data are available on the backup server, it will arrange into the above mode of replication which will be replicated to another AhsayCBS (Replication Server) or a predefined storage immediately. Refer to the [How does Replication Work](#) section for further details on the 4 replication modes.

Replication of Individual Backup Set Only

Instead of replicating all backup sets from all backup users, you now have the flexibility to select specific user's backup set(s) from the Backup Server to replicate to either another Replication Server or a predefined storage.

You can select the desired backup sets for replication when you create a replication sending account, refer to [Configuration on the Replication Sending End](#) for further details.

Retention Policy for Replicated Data

When a snapshot of the backup data on the backup server is replicated to the replication server, the older version of the snapshot will be moved to the retention area for a set period of time before it will be deleted permanently from the replication server. This feature is useful in case if you have to recover data on the backup server from the past.

This configuration can be set when you create a replication receiver, refer to the [Create a Replication User Account](#) section for further details.

**This feature applies only to replication to CBS server.*

Flexible Deployment Options

The replication service can be deployed in various options, including another AhsayCBS server, cloud storage, NAS storage connected via FTP/SFTP/local network, etc. It is also possible for multiple backup servers to replicate data to a single AhsayCBS replication server.

Since AhsayCBS v7.11.0.0, you can even replicate v6 backup sets to a receiver on a v7 replication server before the backup sets undergo the data migration process. This new deployment option gives you greater flexibility to gradually migrate the backup sets in v6 format to v7 format after the backup server is upgraded to v7, while the backup sets in v6 format will still be replicated to provide you with data protection.

For more details on deployment, refer to the [Deployment Options and Comparison](#) section.

Quick Recovery of Backup Server

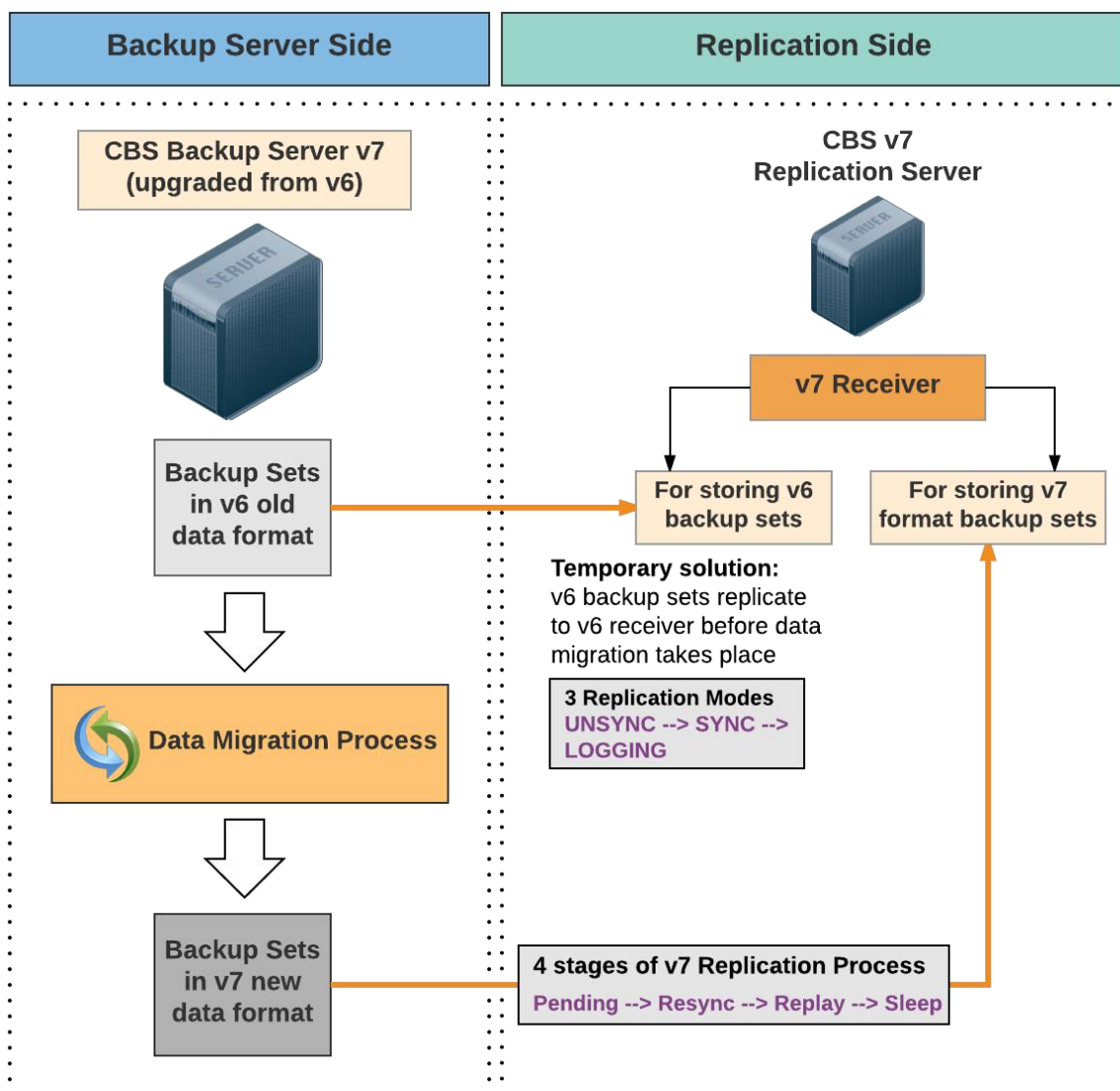
The primary purpose of replication is to provide an extra layer of protection to the data on the backup server in case of disaster like power outage or data corruption. We also understand that it is critical to keep the data recovery process fast so as to minimize interruption to your backup services to clients, that is why we have taken another step forward to simplify the transitioning between replication server and backup server to make the recovery process as fast and seamless as possible. Refer to the [Recovery Method](#) section for further details.

Replication of v6 backup sets on AhsayCBS v7

From v7.11.0.0 or above you can replicate v6 backup sets to a receiver on a v7 replication receiver, this feature can be set under the **[Backup / Restore] > [Sending Data] > [Replication]** page.

The v6 backup set replication feature is designed as a temporary solution to provide extra protection during data migration (conversion from v6 data format to v7 data block format) on a v7 backup server after an upgrade from v6 to v7, it is not intended to be used as a permanent replication solution. Once the data migration process is completed for all backup user accounts, the v6 replication feature should be disabled as v6 backup set data would already have been automatically removed post data migration.

Details of the v6 replication status can be viewed under **[Monitoring] > [Replication Logs] > [Replication Sending]**.



Note: For further details and instructions on backup set data migration from v6 to v7 format, refer to the [Backup Data Migration](#) section.

Requirements

1. Both the AhsayCBS Backup Server (sender) and AhsayCBS Replication Server (receiver) must be on v7.11.0.0 or above.
2. v6 backup set replication must be enabled on both the backup server and replication server.
3. Replication license modules are required for replication of v6 backup sets.
4. The v7 replication on AhsayCBS must be enabled to another replication server.
5. A separate dedicated replication port (default port 9444) is required.

Limitations

1. v7 replication must be enabled to another AhsayCBS server in order to use the feature. As replication to predefined destination does not support replication of v6 backup sets.
2. Replication of v6 backup sets is supported using a single thread.
3. Only v6 backup set data found in the **%USER_HOME%\%USERNAME%\files** folder will be replicated. The replication of other folders and files are handled by v7 replication process.

Before Getting Started

Requirements and Best Practices

License Information

The pricing unit of AhsayCBS Replication Server module is per device to be replicated. If you will replicate to another AhsayCBS, a CBS module license will also be required.

For inquiries please contact the Sales team at Ahsay by email at sales-kb@ahsay.com or call our International Sales Hotline +852 3580 8091.

Version / Platform Compatibility

While AhsayCBS can be deployed on Windows, Linux, FreeBSD, or Solaris x64 platform, it should be noted that only some of the version and platform combinations are supported as illustrated below.

Backup Server		Replication Server		Compatible?
Version	Platform	Version	Platform	
V7	Windows	V7	Windows	Yes
V7	Linux/FreeBSD/Solaris x64	V7	Linux/FreeBSD/Solaris x64	Yes
V7	Windows	V7	Linux/FreeBSD/Solaris x64	Yes
V7	Linux/FreeBSD/Solaris x64	V7	Windows	No*
V6	Windows	V7	Linux/FreeBSD/Solaris x64	Yes
V6	Linux/FreeBSD/Solaris x64	V7	Windows	No*

* The incompatibility is a result of the limitations on Windows operating systems handling of Linux file/folder naming conventions.

Replication Server Storage Requirement

There is a possibility that after your backup data is replicated to replication server, the final data size on the replication server may be larger than the original data size on backup server. This situation could arise if there are differences in the way each respective storage device is formatted, i.e. different default block sizes or different files systems.

Your retention policy settings would also determine the storage required on the replication server. You will need to weight the advantages of using smaller **Restore Point Interval** which allows for a greater chances of recovery and or the **Retention Customization Policy** setting is configured for a large number of days against your replication server storage limitations.

Considering the factors mentioned above, the disk capacity of your replication server should by default be greater than your backup server to accommodate the replication data.

Location of the Replication Server

In terms of disaster recovery situation, the restore media should not be stored or located on the same premises, and these rules would also depend on different compliances, regulations or terms with your customers.

Here are some suggestions that you may need to consider:

- Set up the AhsayCBS Replication Server in another data center. In case you need to host the Replication Server with your Backup Server, you may consider hosting it in another server rack or another server room if possible.

➤ **Dedicated Server for Replication**

Following are the pros and cons on setting up replication on a dedicated server.

Pros:

- Able to switch from Replication Server to Backup Server
- Fast in recovery hence small recovery window and short downtime
- Able to keep replicated snapshots in retention area in case recovery of data in past snapshots becomes necessary

Cons:

- Relatively more complex setup; requires datacenter hosting and maintenance cost
- Relatively expensive to expand storage
- Downtime required for regular maintenance and upgrade
- Upfront investment in hardware storage

➤ **Predefined Destination (Cloud Storage / FTP / SFTP) for Replication**

Following are the pros and cons on setting up replication on a predefined destination.

Pros:

- Quick setup; low hosting and maintenance cost
- Cheaper cost for storage expansion
- No upfront hardware investment required

Cons:

- To recover the replicated data, it is required to set up new backup server and restore data from the predefined destination
- Slow in recovery hence large recovery window and longer downtime.

For more information and comparison on different replication environment setup, please refer to the [Appendix G](#).

AhsayCBS Replication Partitioning

The AhsayCBS replication module makes heavy use of the **User Home** directory to process the snapshots of the backup sets during the Resync stage. During Resync stage, snapshots of backup sets will be written to the User Home in the form of transactions log files.

It is not recommended to use the O/S partition or drive as the System Home. If the System Home folder fills up, this will cause your O/S to become unstable and may even crash your AhsayCBS server. It is strongly recommended the System Home directory should be located on a dedicated local drive.

Replication Performance Tuning

The connection speed between the backup server and the replication location (whether it is an AhsayCBS server or a cloud storage) is typically the primary factor of the replication performance. However, even with a fast and stable connection between the backup server and replication location, the replication performance could be affected by the following factors:

- ❶ Poor disk I/O on the backup server – when scanning and retrieving data files to be sent to the replication server.
- ❷ Poor disk I/O on the replication server – when receiving and committing files to the receiver home.

Poor disk I/O can be attributed to:

- The use of network drives as AhsayCBS user and system homes on the backup server side
- The use of network drives as AhsayCBS receiver home(s) on the replication side.
- The use of a single large disk or volume for AhsayCBS user home.
- The use of a single large disk or volume for multiple AhsayCBS receiver home(s) on the replication side.
- Slow performing local hard drives or storage devices.

In order to improve overall replication performance, the following is recommended:

- A separate local drive for each AhsayCBS user home on the backup server side
- Distributing user accounts across multiple user homes to balance the I/O load
- A separate local drive for AhsayCBS system home on the backup server side
- A separate local drive for each receiver on the replication side

AhsayCBS Java Heap Size Setting

The machine with the Replication server installed may require more memory for additional feature such as retention policy to run.

- ❶ For a replication server with single receiver, a maximum Java heap size setting of at least 1024M is recommended.
- ❷ For a replication server with multiple receivers, a maximum Java heap size setting of at least 2048M is recommended.

When setting the maximum Java heap size for the replication server, 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 performance issues on the replication server during internal Java VM garbage collection or memory recycling routines.

Firewall Settings

Since replication is performed via the http/https ports defined on the AhsayCBS backup server, after you have finished setting up your replication server, please ensure you have updated your firewall settings to allow network traffic through the those ports, which are typically **port 80** for **http** and **port 443** for **https**.

Do Not Deploy the Backup Server and Replication Server on a Single Machine

It is not recommend to configure and use both services on one single machine because it will completely defeat the purpose of the replication service as a backup or standby server for your backup server.

Moreover, the two services will compete for system resources, such as CPU and memory. This could affect the performance and stability of your backup service.

Dedicated Restore Drive on Replication Server

In order to facilitate a fast restore of snapshots from the retention area on the replication server, it is recommended the files are not restored to an existing receiver home drive to avoid affecting replication performance. Your replication server should be configured with a dedicated disk for restore purposes. Alternatively, an external USB drive can also be used.

Storage Requirement on Replication Server

The amount of space required to keep these replication depends on the amount of data changed on your Backup Server.

To calculate the amount of storage required for the retention settings, we can base on the following assumption and formula.

Assumption
There is a 2% data change in the backup server daily.
Formula
Total data storage required = $(1+0.02)^n$ x original data size, where n = number of days of the retention customization policy
For n=30 days, it will be around 1.81 times of the original data size, and 3.28 times if n=60.

Replication Server with Multiple Receivers

If you have configured multiple receivers on your replication server to server more than one backup servers, it is recommended that each receiver is located on its own individual disk. The major advantage of this kind of setup is that it will minimize the I/O on each disk and therefore improve the replication performance.

Replication Using Cross Over Cable

It is not recommended to set up a connection between the backup server and replication server using a cross over cable. As from our experience this setup will result in connection and performance issues.

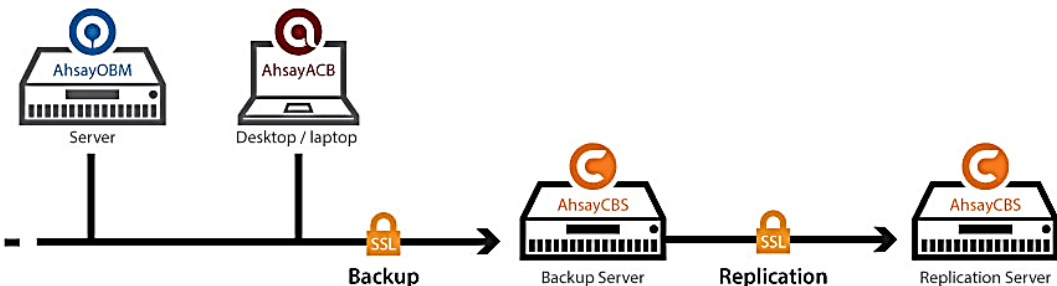
If the backup server and replication server are located on the same site, they should be connected via a switch.

Deployment Options and Comparison

There are three major methods to deploy the replication service. This chapter presents you with all the available deployment options, deployment combination and features comparison on different deployment methods, to help you decide which option to use.

Deployment Method

There are three methods to deploy the replication service as described below.

Method 1 (Recommended) – Deploy on a single AhsayCBS Backup Server replicate to another AhsayCBS Replication Server	
Introduction	
This is the typical deployment option, as well as the most recommended one, which features replication between a single AhsayCBS backup server and AhsayCBS replication server.	
System Architecture	
 <p>The diagram illustrates the system architecture for Method 1. On the left, there are two sources: 'AhsayOBM Server' (represented by a server icon) and 'AhsayACB Desktop / laptop' (represented by a laptop icon). Arrows from both sources point to a central 'AhsayCBS Backup Server' (server icon). This arrow is labeled 'Backup' and includes an 'SSL' lock icon. From the 'AhsayCBS Backup Server', an arrow points to a 'AhsayCBS Replication Server' (server icon). This arrow is labeled 'Replication' and also includes an 'SSL' lock icon.</p>	
Requirement	
Set up a new machine where you wish to host the replication server, and install AhsayCBS on it. In other words, you will have two AhsayCBS services running. One on the backup server, and the other on the replication server where you would like to have the backup data replicated to.	
Pros	
Speed for Replication and Restore	<p><u>Multiple Threads Replication</u></p> <p>Multiple threads replication is supported to improve the replication speed. The actual number of threads that are available for use depends on the CPU power of the backup server. The more CPU cores the backup server has, the more threads it will have for replication. Refer to Multiple Threads Replication for more details.</p> <p><u>High Hardware Performance for High Replication Speed</u></p> <p>A direct attached storage and SAN storage would provide good replicating speed.</p>

Recovery	<p><u>Fast Recovery in a Few Clicks</u></p> <p>In case of a backup server outage, the replication server can be switched as the backup server in a short time to minimize the system down time and interruption to backup users.</p> <p>For instructions to switch a replication server to backup server, refer to Method 3 - Startup Replication Server as Backup Server.</p>
Cons	
Cost	<p><u>Higher Cost</u></p> <ul style="list-style-type: none"> ➤ Setup cost is higher ➤ Cost for hardware storage expansion is relatively higher <p>Although this option involves higher setup cost, consider the higher replication/restore speed and recovery switching, it may be worth the investment.</p>
Storage Provisioning	<p><u>Slower Storage Provisioning</u></p> <p>Compared to cloud storage deployment, it takes more time and effort to assign the additional storage acquired when you need to expand the hardware storage.</p>

Method 2 – Deploy on a single AhsayCBS Backup Server replicate to a Predefined Destination

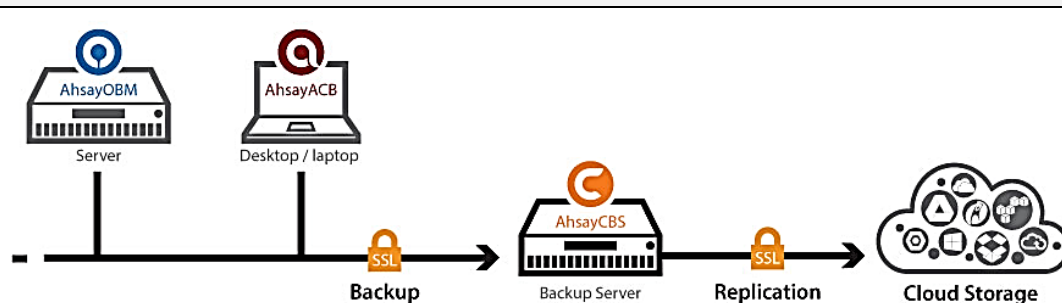
Introduction

This deployment option allows you to replicate your backup data on the backup server to a cloud storage, local/mapped drive/removable storage, or FTP/SFTP server.

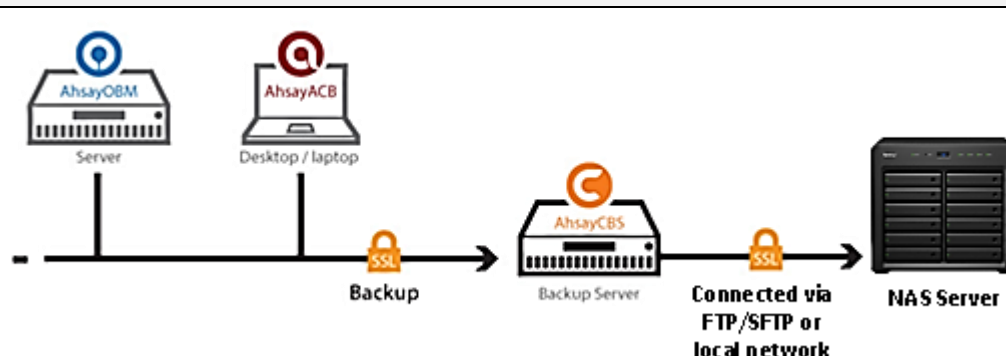
Refer to the list below for all the available redefined destination options.

System Architecture

Method 2a – Cloud Storage as Replication Destination connected via Internet



Method 2b – NAS Server as Replication Destination connected via FTP/SFTP or local network



Requirement

First, you need to have cloud storage account, a local/network/removable drive, or a FTP/SFTP server in place. Then, the predefined destination must have been set under the **System Settings > Predefined Destinations** menu so it can be used for the replication purpose.

Available Predefined Destinations

Aliyun (阿里云)	CTYun (中国电信天翼云)	Amazon Cloud Drive	Amazon S3
Amazon Compatible Cloud Storage	Google Cloud Storage	Google Drive	Microsoft Azure
OneDrive	OneDrive for Business	Rackspace	OpenStack
Dropbox	FTP	SFTP	Local / Mapped Drive / Removable Drive

Pros

Multiple Threads Replication	Multiple threads replication is supported to improve the replication speed. The actual number of threads that are available for use depends on the CPU power of the backup server. The more CPU cores the backup server has, the more threads it will have for replication. Refer to Multiple Threads Replication for more details.
Cost	<u>Low Cost</u> <ul style="list-style-type: none"> ➤ Setup cost is low ➤ Cost for storage expansion, especially on cloud storage, is relatively cheaper

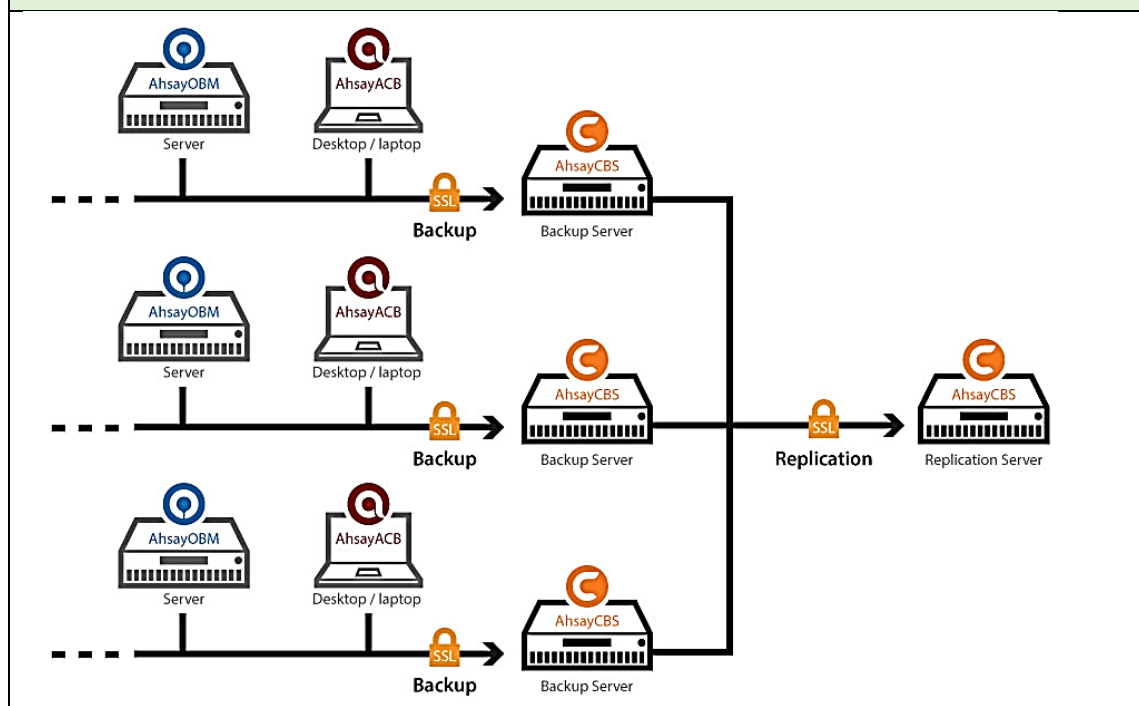
Cons	
Speed of Replication and Restore	<p><u>Slower Upload Bandwidth</u></p> <p>The replication and restore speed is subject to the connection speed to the predefined destination, and administrator may not always have control over the bandwidth.</p>
Recovery	<p><u>Longer Recovery Process</u></p> <p>There is no quick way to restore the replicated data from the predefined destination to the backup server. To recover the replicated data on a predefined destination, you have to:</p> <ol style="list-style-type: none"> 1. Setup a new machine. 2. Install Ahsay CBS. 3. Download the replicated files from the predefined destination back to the Backup Server.

Method 3 – Deploy on multiple AhsayCBS Backup Servers replicating to another AhsayCBS Replication Server

Introduction

This deployment option allows you to replicate backup data from multiple AhsayCBS backup servers to an AhsayCBS Replication Server.

System Architecture



Requirement	
<p>Set up a new machine where you wish to host the replication server, and install AhsayCBS on it.</p> <p>In other words, you will have multiple AhsayCBS services running. Each backup server runs on its own license, while the replication server where you would like to have the backup data replicated to requires another license as well.</p>	
Pros	
Cost	<p><u>Lower Setup Cost</u></p> <p>You only require to have one replication server to accommodate replication from multiple backup servers, instead of one-to-one replication between backup server and replication server.</p>
Single Replication Point Management	<p>With only a single replication server, this deployment option allows you to centrally manage the replication settings and view replication status on the replication server web console, As opposed to the Method 1 deployment where you have to access multiple AhsayCBS web console pages for settings and management.</p>

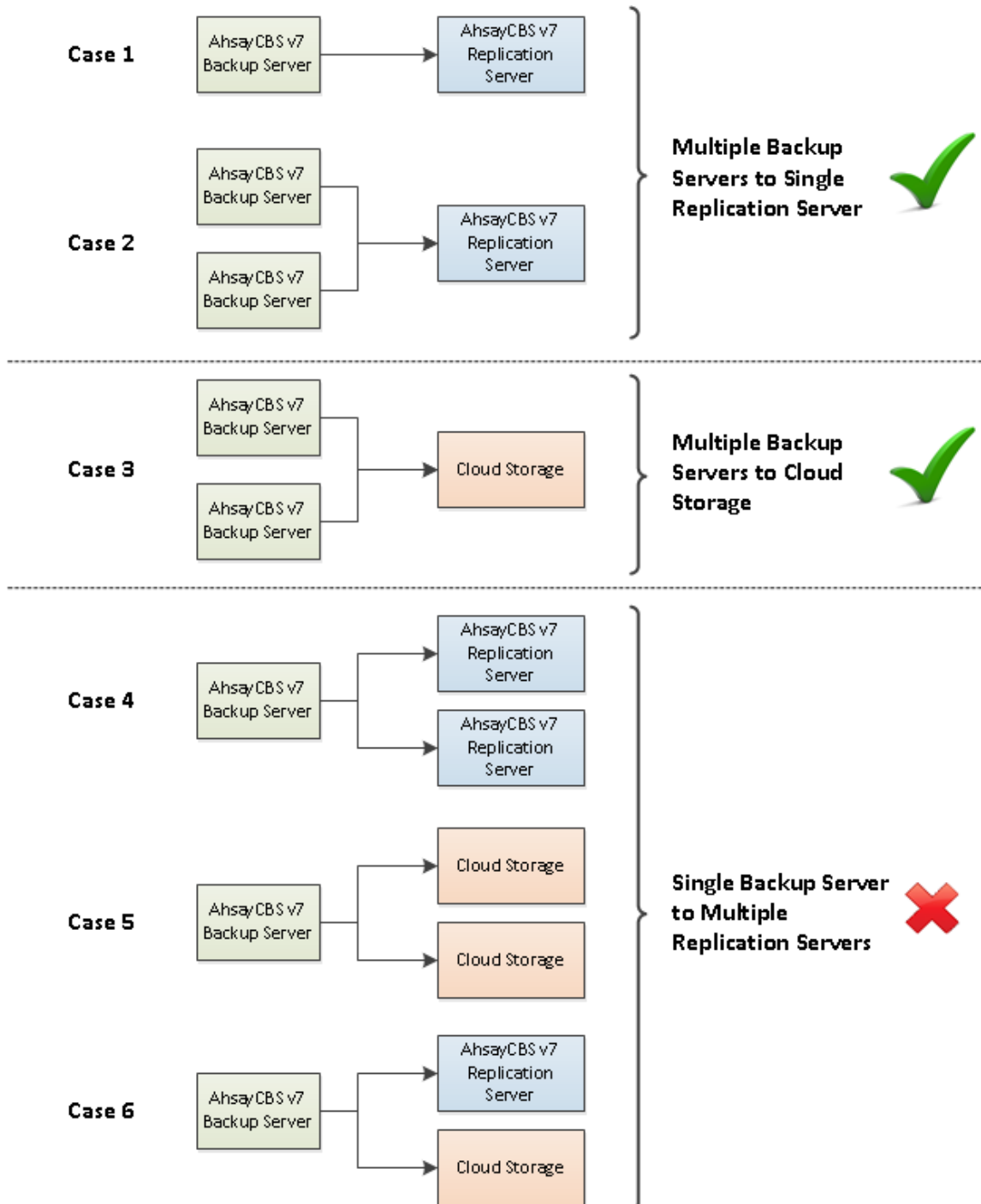
Major Features Comparison between Deployment on AhsayCBS and Cloud Storage

	Deploy on AhsayCBS Replication Server	Deploy on Cloud Storage
Replication Retention	✓	✗
<p>The replication server creates snapshot of the replication data. Under the Replication Retention configurations, Retention Point Interval can be configured to define the number of days between each retention snapshot; Retention Customization Policy can be configured to define the number of days before an existing retention snapshot is removed from the replication server. Click here to see details of this configuration.</p>		
Startup Replication Server as Backup Server	✓	✗
<p>This feature allows you to quickly convert your AhsayCBS replication server into AhsayCBS backup server in the event of a backup server down, so that you can keep serving the backup users to minimal impact to your business. Refer to Method 3 - Startup Replication Server as Backup Server for detailed steps to perform this recovery.</p>		
Replicate Multiple Backup Servers	✓	✓
<p>It is possible to replicate backup data from multiple AhsayCBS backup servers to another AhsayCBS replication server or cloud storage. This gives you the convenience of hosting backup data of multiple backup servers in one single replication server for the purposes of cost saving and easier management. Refer to Deployment Combinations of Backup and Replication Servers for more details.</p>		

Support v6 Backup Set Replication	✓	✗
This feature gives you the flexibility to back up not only v7 format backup sets, but also the v6 ones to the replication server, before the v6 format backup sets undergo the data migration process. Refer to Replication of v6 backup sets on AhsayCBS v7 for further details.		
Quick Storage Provisioning	✗	✓
As time goes by, your replication data may fill up the capacity on your AhsayCBS replication server or cloud storage and you will have to expand the storage capacity to accommodate the replication data. Comparing to AhsayCBS deployment, cloud deployment allows a hassle-free storage upgrade where you only have to pay your cloud storage service provider to get the upgrade done.		
Upfront Hardware Investment	✓	✗
Depending on your organization's budget on deploying the replication service, it is generally more cost-saving to deploy the replication service on cloud storage instead of the AhsayCBS as you do not need to invest on hardware and hosting upfront.		

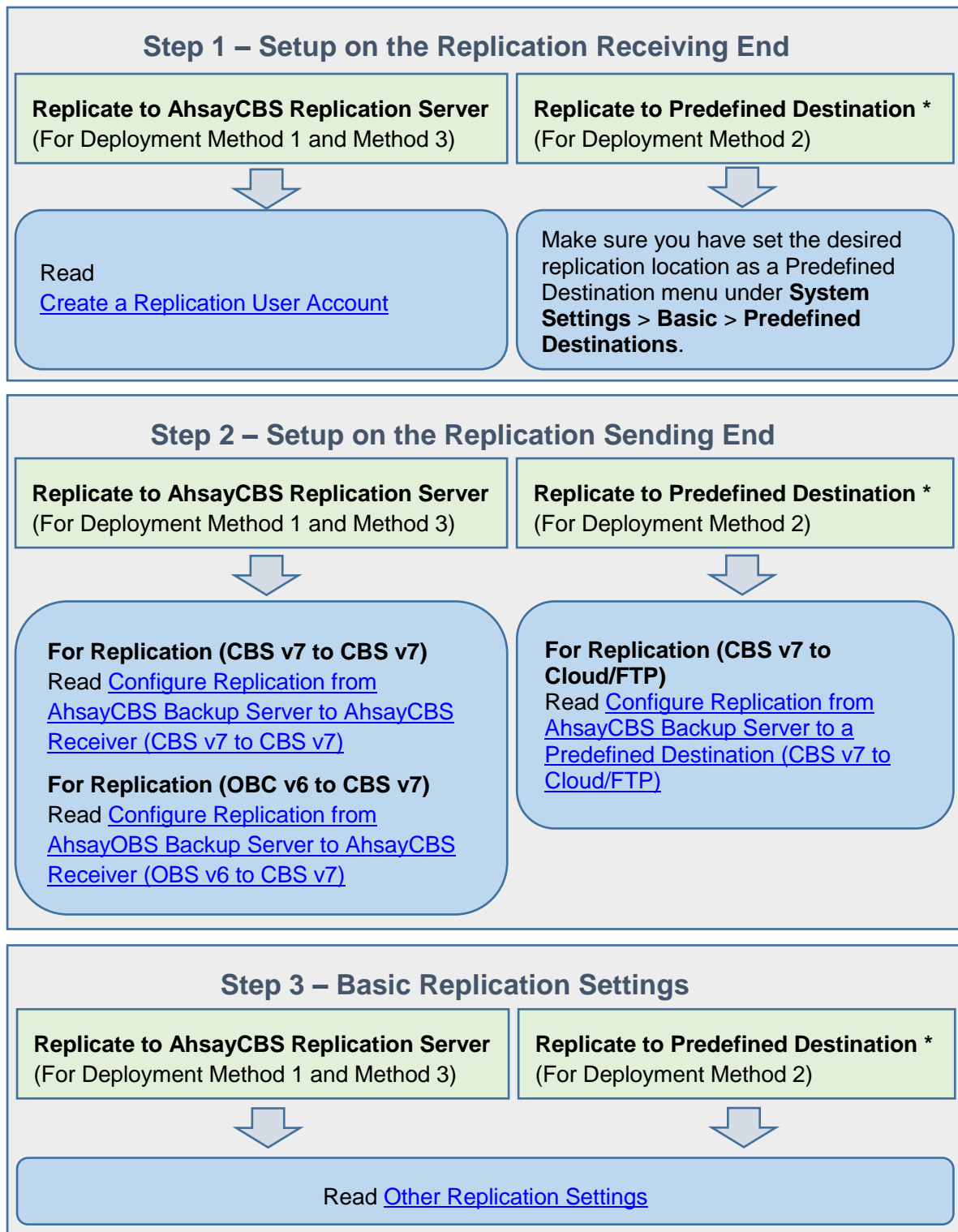
Deployment Combinations of Backup and Replication Servers

It is only possible for a single replication server or cloud storage to host replication data from multiple backup servers, but not the other way around, i.e. a single backup server replicating to multiple replication servers or cloud storage destinations. Refer to the illustration below for details on the possible deployment combinations.



Deployment

Major Steps to Deploy a Replication Service



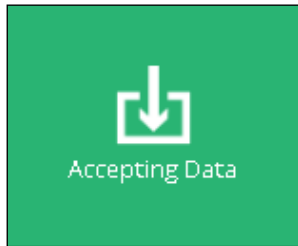
* Replication to Predefined Destination **DOES NOT** support deployment for v6 backup sets on CBS v7

Configuration on the Replication Receiving End

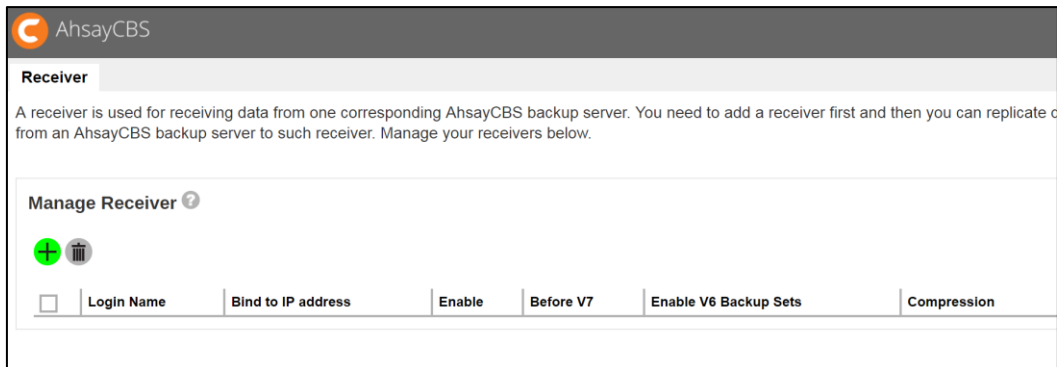
Create a Replication User Account

Before an AhsayCBS/AhsayOBS backup server can replicate backup data to another AhsayCBS replication server, a receiver user account must be created on the AhsayCBS replication server first. Follow the steps below to create a replication receiver account.

1. Log in to the web console on the replication receiving end, go to **Replication > Accepting Data**.



2. Click the **Create (+)** button in the **Manage Receiver** section. The **Add New Receiver** page appears.



3. Set the login name, password and alias of the receiver account.

Add New Receiver

Add a new receiver to receive replication data from another AhsayCBS.

Receiver User Account

Create a user account for this receiver.

Login Name

Password

Alias

4. Configure the source backup server host settings, including the http/https protocol, source backup server host name and port number.

Source Backup Server
Enter the server and user information of the source backup server that will replicate the backup data to this receiver.

Backup Server Host

http ▼

80

Backup Server Version

7 ▼

Backup Server Host – IP address / host name of the backup server

Backup Server Version – select the source backup server version.

- If you select **7**, it means the source backup server is an AhsayCBS version 7 backup server.

If you have upgraded your backup server to v7 from v6, and still wish to replicate backup sets in v6 format before they are migrated to v7 format, make sure you select **7** in this menu.

- **System User** – the system user login of the source backup server
- **System Password** - the system user password of the source backup server

System User

System Password


- If you select **Before 7** as the backup server version, enter the bind to IP address and the replication port. “0.0.0.0” and “9444” are the default values, you can assign a specific IP if you have multiple network cards. For multiple backup servers’ replication, a unique replication port number is required to set, such as “9444”.

Bind to IP address

0.0.0.0

9444

5. Switch the **Enable V6 Backup Sets Replication** on if you will replicate v6 backup sets to the replication server.

Enable V6 Backup Sets Replication

Bind to IP address

6. Configure the retention settings for the replicated data.

Retention Setting

Configure retention settings for the replicated data.

Restore Point Interval

Days

Retention Customization Policy

Days

- **Restore Point Interval** – defines the number of days before new snapshot of the replicated data will be taken and stored in the retention area. A retention snapshot will be taken only when the following two conditions are met:

- There is data received from the backup server
- Restore Point Interval has reached

No retention snapshot will be taken if there is no data received, even when the Restore Point Interval has reached.

- **Retention Customization Policy** – defines the number of days the old snapshot copies to be retained in the retention area.

7. Click the  icon at the bottom right corner to proceed when you are done with settings.

- Set the default home directory for this replication, and set up the path to store the user homes.

- The following is an example of a v7 receiver setup. In v7 receiver setup, you will be able to configure the default home directory, as well as replication home directory for individual backup server user home.

Add New Receiver

Add a new receiver to receive replication data from another AhsayCBS.

Receiver Home

Configure the Receiver Home(s) where this receiver will use to store all the data replicated from the corresponding backup server.

Default Home Directory

Backup Server User Home

D:\AhsayCBS\user

D:\AhsayCBS\user1



G:\AhsayCBS\user

Replication Home

- In v6 receiver, you can only set up the default home directory.



Note

It is recommended to configure the default home directory to a non-system drive (i.e. not C:\ drive), especially when there are v6 backup sets, as the replication transaction log files may fill up the disk space and cause the operating system become unstable.

- Click  and  at the bottom right corner to confirm the configuration.

Editing Replication Receiver

You can edit the configurations of the replication receiver after it has been set up.

- Go to **Replication > Accepting Data** on the AhsayCBS web console on the replication receiver side.
- Click on the replication receiver account under the **Manage Receiver** section which you wish to edit configurations for.
- Revise the desired replication receiver item, then click  and  at the bottom right corner to confirm the changes.

Configuration on the Replication Sending End

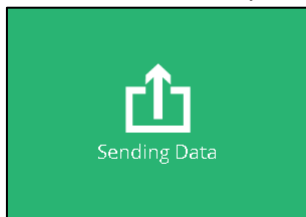
Enable and configure the replication feature on the backup server side by following the corresponding sub-chapter below depending on the backup server version or replication destination.

Configure Replication from AhsayCBS Backup Server to AhsayCBS Receiver (CBS v7 to CBS v7)

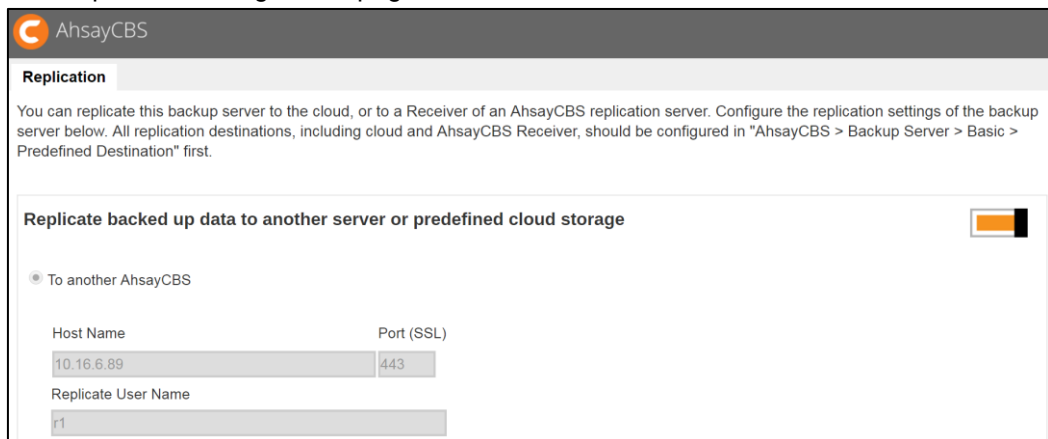
The following example is a v7 (backup server) to v7 (replication server) replication setup. For earlier version setup, please refer to [Configure Replication from AhsayOBS Backup Server to AhsayCBS Receiver \(OBS v6 to CBS v7\)](#) for details.

Note: If you will replicate v6 backup sets on CBS v7 server to another CBS v7 replication server, follow the steps below for setup and make sure you turn on the **Replicate v6 backup sets to v7 server** option in step 7.

1. Make sure you have created a replication receiver account on the receiving end of the AhsayCBS server first. Refer to [Create a Replication User Account](#) for detailed instructions.
2. Click on the **Sending Data** icon under the Replication section on the AhsayCBS web console of the backup server.



3. Switch the Replicate backed up data to another server or predefined cloud storage on. The Replication configuration page shows as below.



4. Select the **To another AhsayCBS** option, and then enter the **Host Name**, **Port**, **Replicate User Name**, **Replicate User Password** of the replication receiver.

☒ To another AhsayCBS

Host Name

target.your-company.com

Port (SSL)

443

Replicate User Name

Replicate User Password

- ▶ **Host Name** – IP address or host name of the replication server with AhsayCBS installed
- ▶ **Replicate User Name** – the username of the receiver created on the AhsayCBS replication server
- ▶ **Replicate User Password** – the password to log in to the receiver create don the AhsayCBS replication server.

5. Check the Connect with SSL checkbox if you need to connect to the replication server with SSL.

☒ Connect with SSL

6. If proxy is required to access the replication server, mark the **Use proxy** checkbox.

☒ Use proxy

7. If there are backup sets in v6 format to be replicated to the replication server, make sure you switch the **Replicate v6 backup sets to v7 server** on. The default port is set as “9444”.

Replicate v6 backup sets to v7 server

☒


Port (SSL)

9444

8. If you wish to configure the following replication settings, refer to [Other Replication Settings](#).

- **Traffic limit for replication** – which limits the amount of bandwidth used by replication.
- **Selectable backup set for replication** – which allows you to choose individual backup set from selected users for replication.

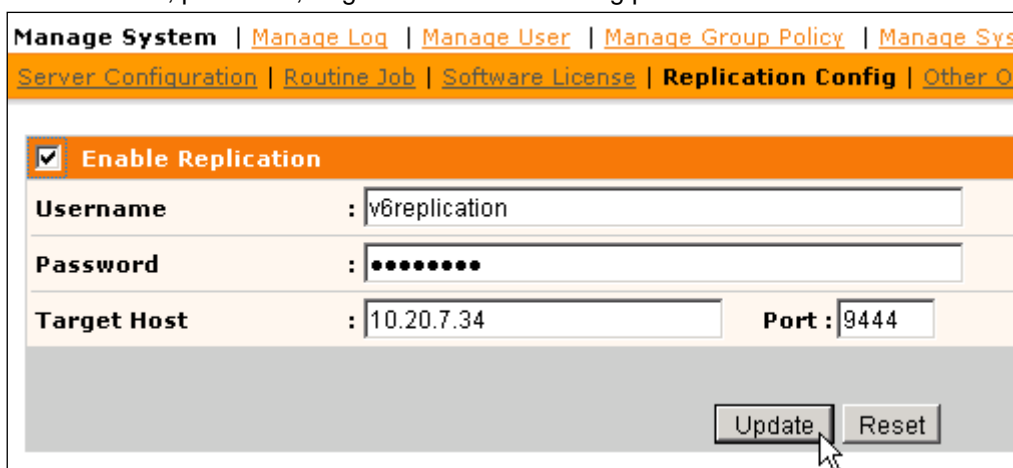
- **Concurrent backup set for replication** – which allows you to configure the maximum number of backup set allowed for replication at the same time.
- **Cyclic Redundancy Check (CRC) Checking** – which allows you to enable this checking to run automatically for verifying the integrity of the replicated data.

9. Click the  icon at the bottom right corner to confirm the configuration.

Configure Replication from AhsayOBS Backup Server to AhsayCBS Receiver (OBS v6 to CBS v7)

It is suggested to upgrade your v6 backup server to v7 so that you can enjoy the latest features provided by the AhsayCBS. If you still wish to continue using the v6 backup server to replicate to a v7 receiver, follow the steps below for configuration of the v6 backup server.

1. Make sure you have created a replication receiver account on the receiving end of the AhsayCBS server first. Refer to [Create a Replication User Account](#) for detailed instructions.
2. In your backup server, navigate to **Manage System -> Replication Config**, then enter the username, password, target host and connecting port.



Manage System | [Manage Log](#) | [Manage User](#) | [Manage Group Policy](#) | [Manage Sys](#)
[Server Configuration](#) | [Routine Job](#) | [Software License](#) | **Replication Config** | [Other O](#)

☒ **Enable Replication**

Username : v6replication

Password :

Target Host : 10.20.7.34 **Port :** 9444

Update **Reset**

3. Click **Update** to confirm the settings.

Note

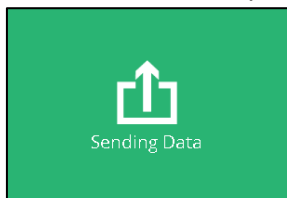
The index files stored in the v6 backup server will not be replicated to the AhsayCBS (Replication Server) nor any cloud storage.

There is no multiple threads replication.

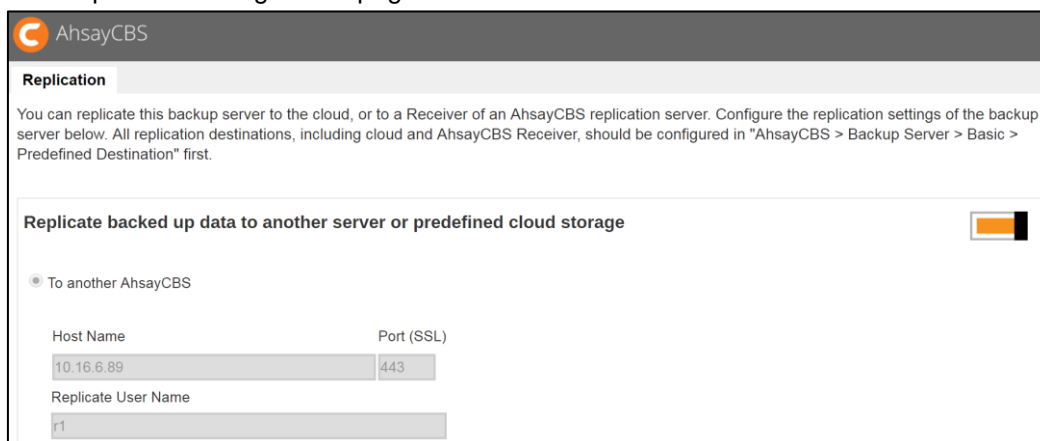
The AhsayCBS replication server cannot be started as a v6 backup server.

Configure Replication from AhsayCBS Backup Server to a Predefined Destination (CBS v7 to Cloud/FTP)

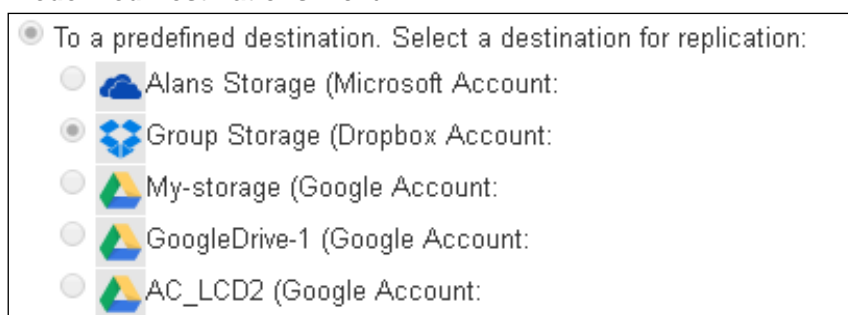
1. Make sure you have created a replication receiver account on the receiving end of the AhsayCBS server first. Refer to [Create a Replication User Account](#) for detailed instructions.
2. Click on the **Sending Data** icon under the Replication section on the AhsayCBS web console of the backup server.



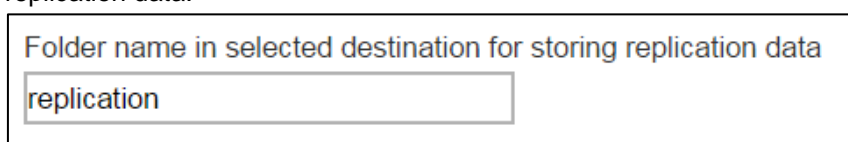
3. Switch the Replicate backed up data to another server or predefined cloud storage on. The Replication configuration page shows as below.



4. Select the **To a predefined destination** option as shown below. You will then see a list of predefined destination you have set under the **System Settings > Basic > Predefined Destinations** menu.




5. You can configure the folder name in the selected predefined destination to store the replication data.



6. If proxy is required to access the replication server, mark the **Use proxy** checkbox.

☒ Use proxy

7. If you wish to configure the following replication settings, refer to [Other Replication Settings](#).
- **Traffic limit for replication** – which limits the amount of bandwidth used by replication.
 - **Selectable backup set for replication** – which allows you to choose individual backup set from selected users for replication.
 - **Concurrent backup set for replication** – which allows you to configure the maximum number of backup set allowed for replication at the same time.
 - **Cyclic Redundancy Check (CRC) Checking** – which allows you to enable this checking to run automatically for verifying the integrity of the replicated data.
8. Click the  icon at the bottom right corner to confirm the configuration.

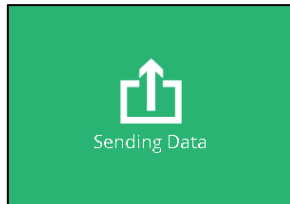
Other Replication Settings


The following replication settings can only be set when the replication feature has been enabled on the AhsayCBS backup server.

Traffic Limit


This is an optional setting that allows you to limit the amount of bandwidth used by replication traffic between a specified periods of your choice.

1. Click on the **Sending Data** icon under the Replication section on the AhsayCBS web console of the backup server.





2. Click the  button in the **Set traffic limit** section to turn the replication feature on. You will then see the configuration menu as shown.



3. Click on the  icon for configuration.
4. You will then see the configuration page as shown.



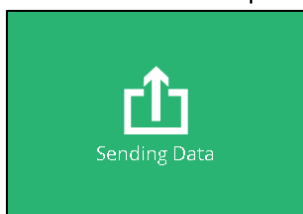
- **From** – set the start time to apply the traffic limit by selecting a day of the week and time in hh:mm (24-hr format)
- **To** – set the end time to apply the traffic limit by selecting a day of the week and time in hh:mm (24-hr format)
- **Maximum Transfer** – set the maximum bandwidth allowed for data transfer in the format of kbits /second.


5. Click the  icon then the  icon at the bottom right corner to confirm the changes.


Replicate Individual Backup Sets

By default, all backup sets of all users on all use homes will be replicated to the replication location (either another AhsayCBS or a predefined destination). However, it is possible to select specific backup users and their specific backup sets for replication.

1. Click on the **Sending Data** icon under the Replication section on the AhsayCBS web console of the backup server.





2. Click the  button in the **Replicate individual backup sets** section to turn the replication feature on. You will then see the configuration menu as shown.

Replicate individual backup sets 












☐ Replicate new backup sets of paid users
☐ Replicate new backup sets of trial users

3. Firstly, you can set to replicate the backup data of either the paid users or trial users, or both by checking the corresponding checkbox(s).

☐ Replicate new backup sets of paid users
☐ Replicate new backup sets of trial users













4. Now, you can start selecting specific backup sets(s) to replicate. Click on the  icon to select the desired backup users first. Multiple selections is possible. Click on the  icon at the bottom right corner to proceed when you are done with the selection.


Select Users

<input type="checkbox"/>	User
<input checked="" type="checkbox"/>	 MSSQL1020135 (Owner: --)
<input checked="" type="checkbox"/>	 TestMSSQL (Owner: --)
<input type="checkbox"/>	 TestOBM_5.63 (Owner: --)
<input type="checkbox"/>	 Test_MSSQL (Owner: --)
<input type="checkbox"/>	 Testoffice365 (Owner: --)
<input type="checkbox"/>	 dennis.test.obm (Owner: --)
<input type="checkbox"/>	 test.test (Owner: --)
<input type="checkbox"/>	 test_obm (Owner: --)
<input type="checkbox"/>	 testencrypt (Owner: --)
<input type="checkbox"/>	 testobrmv6tov7 (Owner: --)
<input type="checkbox"/>	 v6client (Owner: --)







5. You will then see a page listing all the backup sets of the backup user(s) you have selected from the last step. Each individual row shows the name of the backup user, the name of the backup set, and the backup set type in the corresponding icon.

Select Backup Sets









<input type="checkbox"/>	User	Name	Type
<input type="checkbox"/>	 MSSQL1020135 (Owner: --)	FullRecovery-backup-set-Full	
<input type="checkbox"/>	 MSSQL1020135 (Owner: --)	FullRecovery-backup-set-Incremental	
<input type="checkbox"/>	 MSSQL1020135 (Owner: --)	Simple-backup-set-Incremental01	
<input type="checkbox"/>	 MSSQL1020135 (Owner: --)	Simple-backup-set-Incremental02	
<input type="checkbox"/>	 TestMSSQL (Owner: --)	FullRecovery-backup-Full	
<input type="checkbox"/>	 TestMSSQL (Owner: --)	FullRecovery-backup-Incremental	

6. Select the desired backup sets by clicking the corresponding checkbox, then click the  icon at the bottom right corner to confirm the selection.

Select Backup Sets

<input type="checkbox"/>	User
<input checked="" type="checkbox"/>	 MSSQL1020135 (Owner: --)
<input checked="" type="checkbox"/>	 MSSQL1020135 (Owner: --)
<input type="checkbox"/>	 MSSQL1020135 (Owner: --)
<input type="checkbox"/>	 MSSQL1020135 (Owner: --)
<input checked="" type="checkbox"/>	 TestMSSQL (Owner: --)
<input type="checkbox"/>	 TestMSSQL (Owner: --)

7. You will then see the selected backup sets being added to the **Replicate individual backup sets** section as shown if they are added successfully. Each row of the entry shows the corresponding backup user name, backup set name and the size of the backup set.

Replicate individual backup sets			
<input checked="" type="checkbox"/>	Replicate new backup sets of paid users		
<input checked="" type="checkbox"/>	Replicate new backup sets of trial users		
			
<input type="checkbox"/>	Login Name (Alias)	Backup Set	Used
<input type="checkbox"/>	 MSSQL1020135 (MSSQL1020135)	 FullRecovery-backup-set-Full	231.83M
<input type="checkbox"/>	 MSSQL1020135 (MSSQL1020135)	 FullRecovery-backup-set-Incremental	225.93M
<input type="checkbox"/>	 TestMSSQL (TestMSSQL)	 FullRecovery-backup-Full	43.5M

8. Click the  icon then the  icon at the bottom right corner to confirm the changes.

Setting the Number of Backup Sets to Replicate Concurrently

You are able to change the number of backup sets to replicate concurrently on the AhsayCBS backup server web console under **Replication > Sending Data**.

Under the Replicate backed up data to another server or predefined cloud storage section, there is a drop-down menu for the No. of backup sets to replicate concurrently setting.

No. of backup sets to replicate concurrently

Auto ▼

If you are running on an 8-core CPU, then the number of concurrent backup set to replicate is 4. When you use the default values **Auto**, it will allow your replication to run with 4 concurrent backup sets. In case you find the replication causing performance issues such as hard disk I/O or network bandwidth, you may adjust the concurrent backup set value from the drop-down menu as highlighted above.

Note

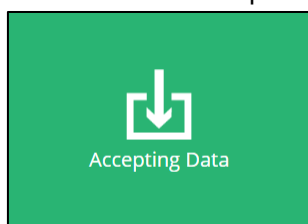
The multiple threads feature supports the backup set that is created/converted in V7 format. This feature does not support users who are still using v6 backup clients, as their backup sets are still using the legacy v6 backup set data format. Refer to the [Backup Data Migration](#) section for further information on converting backup set format.

Cyclic Redundancy Check (CRC) Checking

The **Cyclic Redundancy Check (CRC) Checking** job will check all new files replicated to the AhsayCBS receiver since the last CRC job. This checking can be run automatically for verifying the integrity of the replicated data.

A replication receiver must have been set before you can enable the Cyclic Redundancy Check (CRC) Checking.

1. Click on the **Accepting Data** icon under the Replication section on the AhsayCBS web console of the backup server.





2. Click on the receiver which you wish to enable the CRC checking feature.


Receiver

A receiver is used for receiving data from one corresponding AhsayCBS backup server. You need to add a receiver first and then you can replicate data from an AhsayCBS backup server to such receiver. Manage your receivers below.



Manage Receiver ?



<input type="checkbox"/>	Login Name	Bind to IP address	Enable	Before V7	Enable V6 Backup Sets	Compression
<input type="checkbox"/>	r1	0.0.0.0:443, 0.0.0.0:80, 0.0.0.0:9444	true	No	true	true

3. Scroll to the **Cyclic Redundancy Check (CRC) Checking** section and switch on the feature by sliding the  icon on the right.
4. The CRC checking is set to run on the second and forth Saturdays of every month by default. You can configure the time for the checking to run on the specified dates.

Cyclic Redundancy Check (CRC) Checking
Monthly at (HH:MM)
On the 2nd and 4th Saturdays of every month

5. Click the  icon then the  icon at the bottom right corner to confirm the changes.

Recovery Process Overview

After you have deployed the replication server, data from the backup server will be replicated to the replication destination you have selected. In the event of a system down on your backup server, or you wish to retrieve deleted data from the replication destination, you can recover the configurations and backup data replicated from the backup server by using any one of the recovery methods below.

<u>Method 1 – Rebuild AhsayCBS from Replication</u>
Introduction
This recovery method rebuilds the AhsayCBS by extracting AhsayCBS configuration, system files, user profiles and backup data from the replication destination then restoring it either to the Backup Server or restoring the raw data alone using a Backup Client Agent (AhsayOBM / AhsayACB).
Steps
<p>Step 1: Confirm Replication Status by Checking Replication Logs</p> <p>Step 2: Extract Data from Replication Destination</p> <ul style="list-style-type: none">➤ From AhsayCBS Replication Server➤ From a Predefined Destination - Cloud storage➤ From FTP/SFTP➤ From Local/Mapped Drive/Removable Drive➤ From v6 Replication➤ From Snapshot in Retention Area <p>Step 3: Restore replication data extracted from the previous step using either method below</p> <ul style="list-style-type: none">➤ Restore Data to the Backup Server <p>-OR-</p> <ul style="list-style-type: none">➤ Restore the Raw Data Alone using a Backup Client Agent
Pros
<p><u>Selective Backup Set Restore</u></p> <p>After extracting the backed up data from the replication destination, you have the flexibility to restore only the selected backup sets from selected backup users, instead of restoring all data at once.</p> <p><u>Restore as Raw Data</u></p> <p>Instead of restoring the backed up data to the backup server, you can only restore the raw data by using a client backup agent (AhsayOBM / AhsayACB).</p>
Cons
<p><u>Relatively Time and Effort Consuming</u></p> <p>As opposed to Method 3 where you can quickly convert the replication server as backup server, this recovery method takes more time and effort to rebuild the backup server.</p>

Method 2 – Rebuild from Auto Save

Introduction

This recovery method only restores the AhsayCBS configuration, system files and user profiles but not the users' backed up data. Users' backed up data will have to be re-uploaded again to complete the recovery.

Steps

Step 1: Select the desired Auto Save snapshot by date

Step 2: Select the desired configuration and/or user profile

Step 3: Override the existing configuration files

-OR-

Manually restore the configuration files

Step 4: Restart AhsayCBS service

Refer to [Method 2 - Rebuild from Auto Save](#) section for detailed steps.

Pros

Quick Rebuild of AhsayCBS

AhsayCBS can be quickly rebuilt by applying only the configuration files and user profiles.

Cons

Longer Time to Re-upload Backup Data

Since the users' backup data is not restored and required to be re-uploaded again, it is going to take a longer time to complete the whole recovery process.

Method 3 – Start up Replication Server as Backup Server

Introduction

This recovery method allows you to quickly convert AhsayCBS in replication receiver mode to a backup server. This is a quick and direct way to access your backup data in the event of a system down on your backup server.

Steps

Refer to [Method 3 - Startup Replication Server as Backup Server](#) for detailed steps.

Pros

Fastest Recovery

This recovery method is the fastest way to turn the replication server as a backup server so as to minimize the system down time in the event of a backup server disaster.

Recovery Methods

Method 1 - Rebuild AhsayCBS from Replication

1. Set up a new AhsayCBS on a new machine with similar hardware specification, and sufficient hard disk space as the original backup server.
2. Make sure replication has been performed before you start restoring any replication data. Refer to [To check replication logs on the Backup Server:](#) and [To check the replication logs on the Replication Server:](#) for details.
3. Extract data in the 3 folders (“**conf**”, “**system**” and “**user**”) from the replication destination. Below are the links that can quickly direct you to the corresponding section for the detailed steps.
 - From [AhsayCBS Replication Server](#)
 - From [a Predefined Destination - Cloud storage](#)
 - From [FTP/SFTP](#)
 - From [Local/Mapped Drive/Removable Drive](#)
 - From [v6 Replication](#)
 - From [Snapshot in Retention Area](#)
4. Stop AhsayCBS server on the new machine.
5. To rebuild the AhsayCBS on the new machine by restoring the extracted data, continue to read through the rest of the steps in this section.

-OR-

To restore the backup raw data alone using a Backup Client Agent, disregard the steps below and skip to [Restore Raw Data Using AhsayOBM / AhsayACB](#) for further steps.

6. Copy all the contents in 3 folders backup to your new server as instructed below:
 - **system -> CBS_HOME\system**
 - **user -> CBS_HOME\user**
 - **conf\conf.zip -> CBS_HOME\conf**

Note: Expand the conf.zip first.
7. Start the AhsayCBS server on the new machine after copying the data instructed above.
8. Logon to the AhsayCBS web management console.
9. You will notice that there is a license error. This is because your AhsayCBS is running on the new machine with hardware and settings changed. Please contact our [support](#) with your licensee name and license key. We shall relax the license for you. There is a 14 days grace period before the license deactivates.

Here is a list of suggested items to check after you started up your AhsayCBS.

1. Check SMTP settings in AhsayCBS web console by navigating to **System Settings > Basic > Email**.
2. Check all users' profile, backup and policy group settings in AhsayCBS web console by navigating to **Backup/Restore > Users, Groups & Policies**.
3. Check https connection to the AhsayCBS on different browsers (IE, Firefox and Chrome).
4. Connect AhsayOBM/AhsayACB to AhsayCBS with both http and https connections.

Method 2 - Rebuild from Auto Save

Comparing with the rebuilding from the replication server, this option can only restore the AhsayCBS configuration, system files and user profiles. Users' backed up data will not be restored and therefore users need to re-upload all backup data again on their next schedule backup.

So it is very important to configure a replication for your AhsayCBS if you need to restore everything that was originally on the Backup Server.

Reminders

1. As the system keeps only a maximum of 30 Auto Save snapshots on software vendor's cloud, if you want to keep these snapshot(s) on your server, you need to download these snapshots manually.
2. If you restore an earlier snapshot, all the snapshots beyond the restore date will not be able to restore again.

Example: If today is Jan 21st 2016, after you restore the snapshot on Jan 19th, 2016, the snapshot on Jan 20th and Jan 21st will not be able to select from the dropdown list.

The table below shows all the major system configuration files that are saved on the cloud daily by the Auto Save system job:

Server Configuration	
Description	Path
Connector setting file	/conf/server.xml
CBS option files	/conf/afc.opt
	/conf/cbs.opt
Runtime setting file	/conf/cbssvc.ini
Default certificate files	/conf/ca.crt
	/conf/ssl.crt
	/conf/ssl.key
CBS setting files	/conf/cbs.json
Redirector configuration files	/conf/lfsConfig.xml
CBS Configuration	
Description	Path
Backup Server setting files	/conf/obs.json
License files	/conf/lic.json
	/conf/license.xml
CBS/OBS option files	/conf/cbs.opt
Autoupdate index	/conf/autoUpdate.bdb
Replication configuration files	/conf/rpsSend.xml

RPS Configuration	
Description	Path
Replication configuration files	/conf/rps.xml /conf/rpsRecv.xml /conf/rps-recv.json
RDR Configuration	
Description	Path
Redirector configuration files	/conf/rdr.xml /conf/rdr.json
License files	/conf/rdr-lic.json /conf/rdr-license.xml
CBS User Profile	
Description	Path
Users' profile	/conf/users.xml
Others	
Description	Path
Branding directory	/conf/Branding/*.*
User group definition	/system/obs/policies/userGroup.xml
Policy group definition	/system/obs/policies/policyList.xml

Please note that there are no options to restore the “Others” category, however it will be restored automatically every time when you need to restore the auto save files.

Steps to restore the Auto Save snapshot

1. Login to AhsayCBS management console, and go to **System Settings -> Advanced -> Auto Save**.
2. Turn on the **Use Auto Save** switch, then click on the **Restore** button.

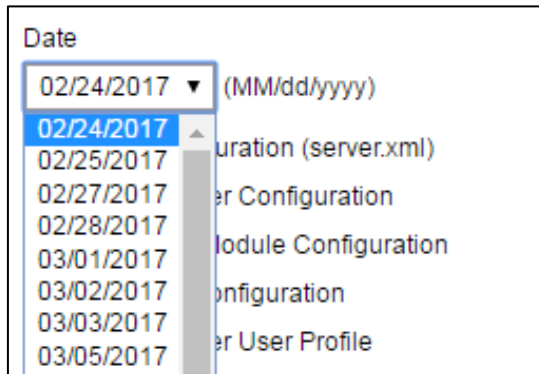
Auto Save
Proxy
Logging
File Explorer
Runtime Options

When this feature is enabled, the system will automatically save all the settings in this server to the software vendor's cloud so that you can restore those settings in the future when needed.

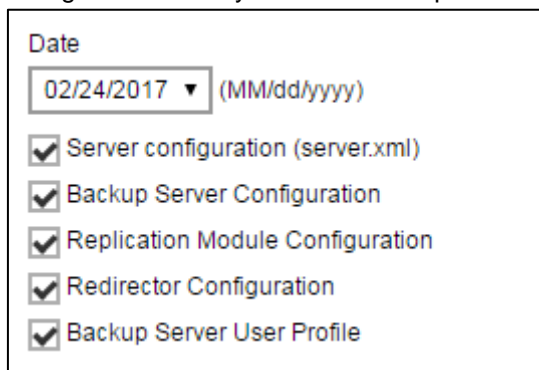
Use Auto Save
☐ Use Proxy

Restore

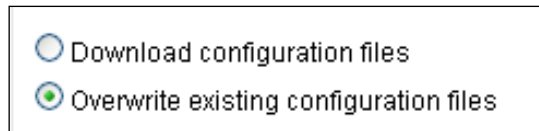
3. Select the snapshot that you want to restore.

A screenshot of a date selection dropdown menu. The title is "Date". The selected date is "02/24/2017" with a dropdown arrow and the format "(MM/dd/yyyy)". Below the selected date, a list of dates is shown: "02/24/2017", "02/25/2017", "02/27/2017", "02/28/2017", "03/01/2017", "03/02/2017", "03/03/2017", and "03/05/2017". To the right of these dates, corresponding configuration items are listed: "uration (server.xml)", "er Configuration", "odule Configuration", "onfiguration", and "er User Profile".

4. Select the items that you need to restore. Select all the items if you need to restore the configuration exactly on that restore point.

A screenshot of a configuration selection form. The title is "Date". The selected date is "02/24/2017" with a dropdown arrow and the format "(MM/dd/yyyy)". Below the date, there are five checkboxes, all of which are checked: "Server configuration (server.xml)", "Backup Server Configuration", "Replication Module Configuration", "Redirector Configuration", and "Backup Server User Profile".

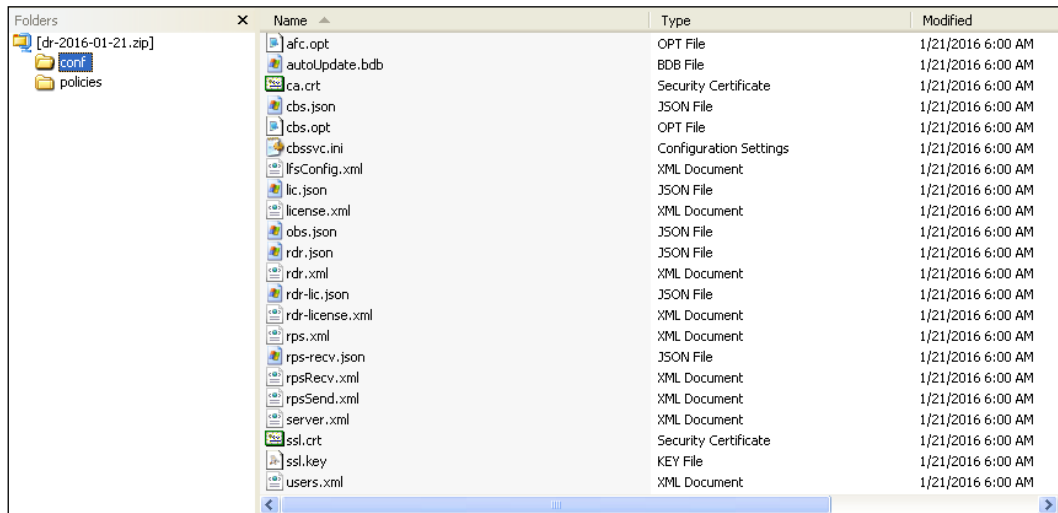
5. Click on the **Next** button.
6. Select to download the snapshot file or to overwrite the existing configuration.

A screenshot of a form with two radio buttons. The first radio button is unselected and is labeled "Download configuration files". The second radio button is selected (indicated by a green dot) and is labeled "Overwrite existing configuration files".

- In this example, we have selected the **Overwrite existing configuration files** option.
 - Skip to the [Manual Restore](#) section below if you want to restore the downloaded file manually.
7. Click on the **Restore** button if you want to overwrite the existing configuration.
8. Restart the AhsayCBS service, and the configuration will be overwritten.

Manual Restore

1. Here is an example of the downloaded configuration file, it is named as dr-YYYY-MM-DD.zip date format.



Folders	Name	Type	Modified
[dr-2016-01-21.zip]	afc.opt	OPT File	1/21/2016 6:00 AM
conf	autoUpdate.bdb	BDB File	1/21/2016 6:00 AM
policies	ca.crt	Security Certificate	1/21/2016 6:00 AM
	cbs.json	JSON File	1/21/2016 6:00 AM
	cbs.opt	OPT File	1/21/2016 6:00 AM
	cbssvc.ini	Configuration Settings	1/21/2016 6:00 AM
	ifsConfig.xml	XML Document	1/21/2016 6:00 AM
	lic.json	JSON File	1/21/2016 6:00 AM
	license.xml	XML Document	1/21/2016 6:00 AM
	obs.json	JSON File	1/21/2016 6:00 AM
	rdr.json	JSON File	1/21/2016 6:00 AM
	rdr.xml	XML Document	1/21/2016 6:00 AM
	rdr-lic.json	JSON File	1/21/2016 6:00 AM
	rdr-license.xml	XML Document	1/21/2016 6:00 AM
	rps.xml	XML Document	1/21/2016 6:00 AM
	rps-recv.json	JSON File	1/21/2016 6:00 AM
	rpsRecv.xml	XML Document	1/21/2016 6:00 AM
	rpsSend.xml	XML Document	1/21/2016 6:00 AM
	server.xml	XML Document	1/21/2016 6:00 AM
	ssl.crt	Security Certificate	1/21/2016 6:00 AM
	ssl.key	KEY File	1/21/2016 6:00 AM
	users.xml	XML Document	1/21/2016 6:00 AM

2. (Optional) If you need to restore the file manually, you can unzip the 2 folders “**conf**” and “**policies**” into the **CBS_HOME\system\recovery**. After the restart of the AhsayCBS service, the configuration will be imported to the AhsayCBS.

Method 3 - Startup Replication Server as Backup Server

Refer to the following steps to convert your AhsayCBS in replication receiver mode to a backup server.

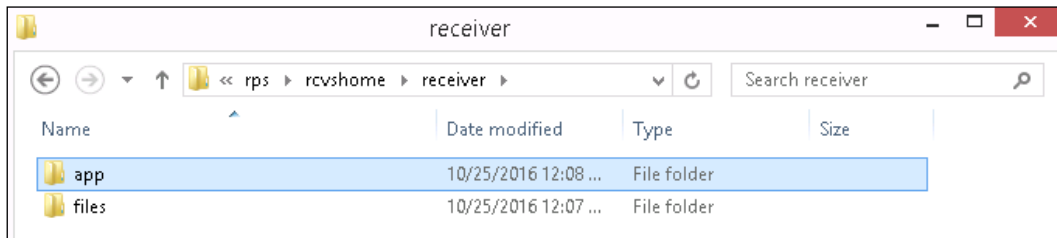
Note

It is assumed that the first cycle of replication from the sender to the receiver had been completed.

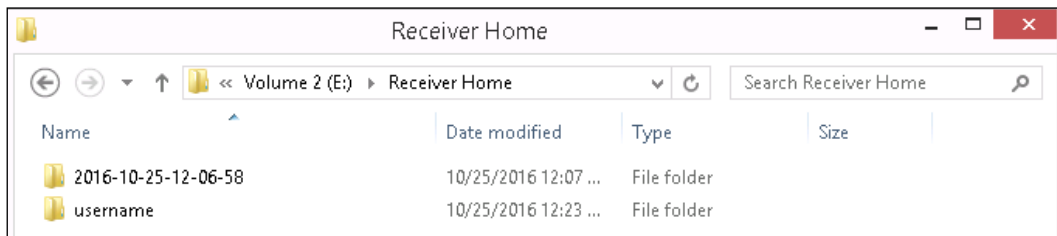
1. Check on the Receiver's Setting by following the steps below, and make note of the **Default Home Directory** and **Replication Home** settings.
 - On the AhsayCBS in replication receiver mode, login to the AhsayCBS web console.
 - Confirm on the replication receiver's settings. Under **Replication**, select **Accepting Data**.
 - Check on the **Default Home Directory** setting, as well as the **Replication Home** setting.

Default Home Directory	
C:\Program Files\AhsayCBS\system\rps\rcvshome\receiver	
Backup Server User Home	Replication Home
C:\Program Files\AhsayCBS\user	E:\Receiver Home

Default Home Directory is where the replication sender's system home, user settings, and configuration settings are stored (in the app folder).



Replication Home is the location where users' backup data and logs are stored.



In the example above, the following settings are used:

- Default Home Directory is set to:
C:\Program Files\AhsayCBS\system\rps\rcvshome\receiver
- Replication Home is set to:
E:\Receiver Home

2. Configure the Software License by following the steps below.

- On the AhsayCBS in replication receiver mode, login to the AhsayCBS web console.
- Under **System Settings**, select **Licenses**, then apply the AhsayCBS license (the license from the AhsayCBS in backup server mode).

This will ensure that there are sufficient **Client Software** and **Add-on Modules** available to the backup users after the switch.

- Press **Update**, then click .

Ensure that the license information are properly applied by checking the Client Software and Add-on Modules settings under License Details.

Important

Before continuing with the next step, ensure that the license is properly applied. Failure to do so may result in backup accounts being suspended and all backup settings being reset.

Also, ensure to shut down the AhsayCBS on the backup server, so that you are not running two servers with the same AhsayCBS license.

3. Convert the AhsayCBS in Replication Receiver Mode to Backup Server Mode by following the steps below.

- Shutdown the AhsayCBS service.

Note: For AhsayCBS version 7.9.0.0 or above, shutdown the AhsayCBS and AhsayCBS NFS services.

- Copy the replicated system **config** files to the corresponding location.
 - ⦿ Extract the content of the **conf.zip** file from the **Default Home Directory** to the AhsayCBS installation **conf** folder.

Extract

%Default Home Directory%\app\conf\conf.zip

to

%AhsayCBS Install Home%*

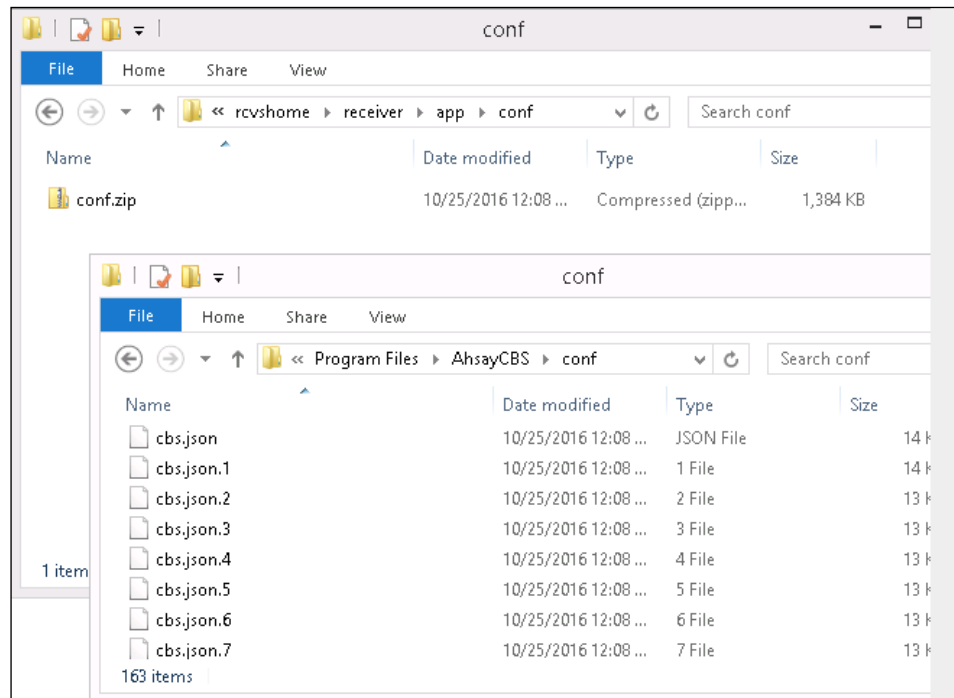
Using the example in Step 1, extract content of

C:\Program

Files\AhsayCBS\system\rps\rcvshome\receiver\app\conf\conf.zip

to

C:\Program Files\AhsayCBS\conf



- Copy the replicated system home to the corresponding location by following the steps below.
 - ④ Copy the replicated system home from the **Default Home Directory** to the AhsayCBS system home folder.

Copy

%Default Home Directory%\app\system*

to

%AhsayCBS System Home%*

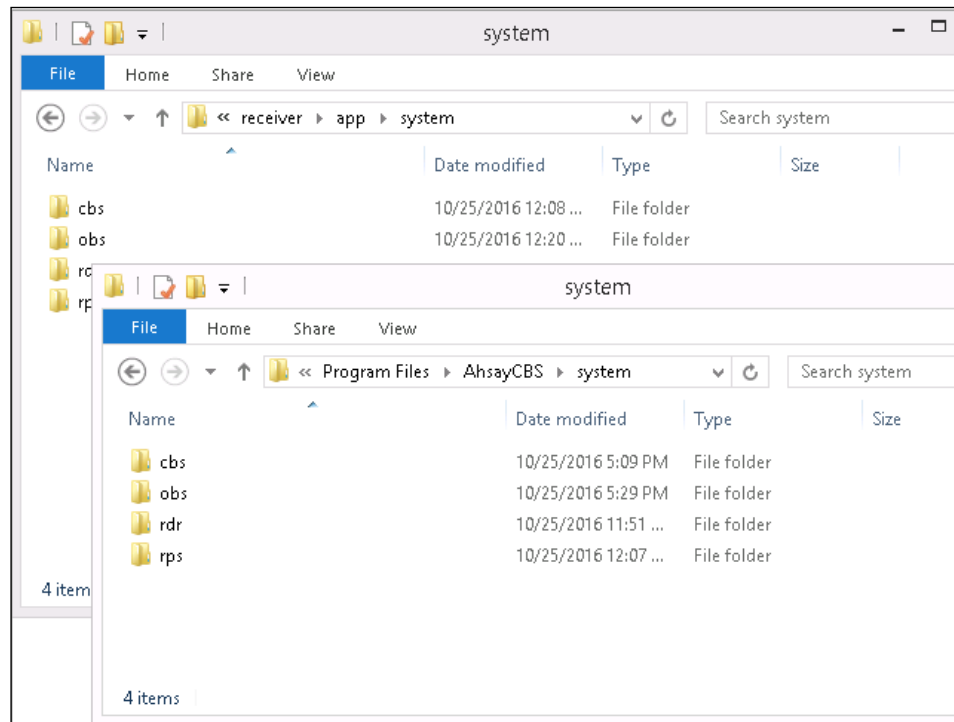
Using the example in Step 1, copy the content of

C:\Program

Files\AhsayCBS\system\rps\rcvshome\receiver\app\system*

to

C:\Program Files\AhsayCBS\system



Note

If you are planning to change the system home location, copy the replicated system home to the new system home location instead.

- Copy the replicated user home to the corresponding location.
 - ⦿ Copy the replicated user home from the **Replication Home** to the AhsayCBS user home folder.

Copy

%Replication Home%\%username%

to

%AhsayCBS User Home%*

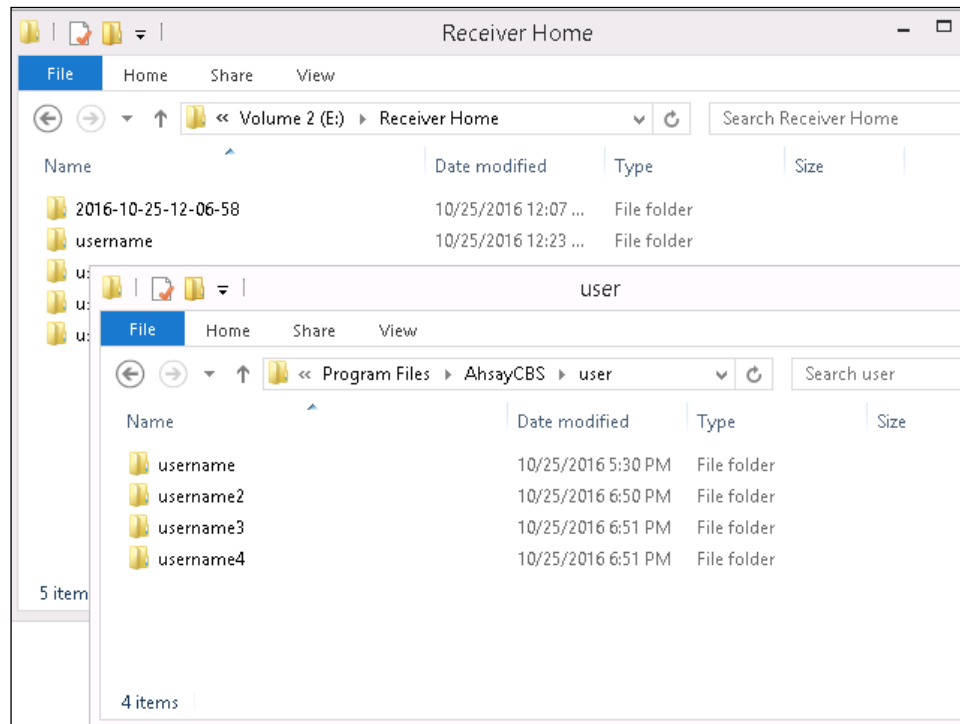
Important: Do not copy over the folder in YYYY-MM-DD-hh-mm-ss format.

Using the example in Step 1, copy the content of

E:\Receiver Home*

to

C:\Program Files\AhsayCBS\user



Note

If you are planning to change the user home location, copy the replicated user home to the new user home location instead.

- Startup the AhsayCBS service.

Note: For AhsayCBS version 7.9.0.0 or above, startup the AhsayCBS and AhsayCBS NFS services.

- Login to the AhsayCBS web console, confirm on the settings.
 - ⦿ Confirm the system settings under the **System Settings > Basic** and **System Settings > Advanced** menus.
Modify the **System Home** setting under **System Settings > Basic** if necessary (e.g. if you had copied the replicated system home to a new location in the previous step).
 - ⦿ Confirm the user and policy settings under **Backup / Restore > Users, Groups & Policies** menu.
Modify the **User Home** setting under **Backup / Restore > Basic** if necessary (e.g. if you had copied the replicated user home to a new location in the previous step).

Note

For AhsayCBS installation on Linux platforms, the conversion procedure is the same except all directory paths are in the Linux convention.

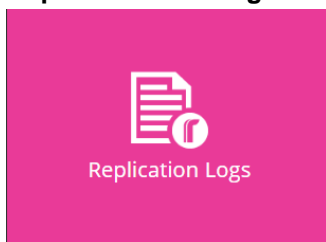
Extract Data from Replication Destination

Getting Started

If you have chosen to recover your replication data using [Method 1 - Rebuild AhsayCBS from Replication](#), you will have to extract the replication data from the replication destination first. Before getting started, make sure replication has been performed before you start restoring any replication data by performing the following checking.

To check replication logs on the Backup Server:

Log in to the AhsayCBS web console, navigate to **Monitoring > Replication Logs > Replication Sending**.



AhsayCBS

Replication SendingReplication ReceivingActivities Log

View all the logs of sending job from this server to the corresponding receiver below.

Replication Sent Log

FilterTypeView* Today

Timestamp	Type	Message
11/16/2016 14:21:15	ReplicateStart	Start replication (User: a1, Backup Set: MySQL Database 1)
11/16/2016 14:21:15	ReplicateStart	Start replication (User: a1, Backup Set: MySQL Daily)
11/16/2016 14:21:15	ReplicateMode	Start replication in RESYNC mode (User: a1, Backup Set: MySQL Database 1)
11/16/2016 14:21:15	ReplicateMode	Start replication in RESYNC mode (User: a1, Backup Set: MySQL Daily)
11/16/2016 14:21:19	CompareDirInfo	Comparing directory 'replication\ToDropBox4BIZ10318\user\11465211867978\blocks' with the one at target destination
11/16/2016 14:21:20	CompareDirInfo	Comparing directory 'replication\ToDropBox4BIZ10318\user\11465203392036\blocks' with the one at target destination
11/16/2016 14:21:23	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465211867978\blocks\2016-06-06-19-18-59\0000000.bak'...
11/16/2016 14:21:23	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465203392036\blocks\2016-06-06-16-58-05\0000000.bak'...
11/16/2016 14:21:25	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465203392036\blocks\2016-06-06-16-58-05\0000001.bak'...
11/16/2016 14:21:25	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465211867978\blocks\2016-06-06-19-18-59\0000001.bak'...
11/16/2016 14:21:35	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465203392036\blocks\2016-06-06-16-58-05\0000001_000001.bak'...
11/16/2016 14:21:35	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465211867978\blocks\2016-06-06-19-18-59\0000001_000001.bak'...
11/16/2016 14:21:39	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465203392036\blocks\2016-06-06-16-58-05\0000002.bak'...
11/16/2016 14:21:40	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465211867978\blocks\2016-06-06-19-18-59\0000002.bak'...
11/16/2016 14:21:40	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465203392036\blocks\2016-06-06-16-58-05\index-s0.j00.100.15524f01610.cgz'...
11/16/2016 14:21:41	ReplicateFileInfo	Replicating 'D:\AhsayCBS\user\11465211867978\blocks\2016-06-06-19-18-59\index-s0.j00.100.1552570d700.cgz'...

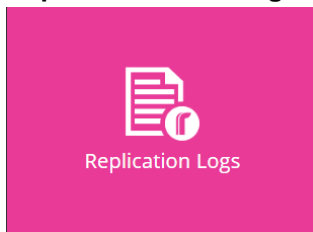
Viewing option

Use the drop-down filters at the top right corner to filter the desired replication sending logs:

Type	Select the desired type of replication log to display
View	Select a specified date or range of time of the replication logs

To check the replication logs on the Replication Server:

Log in to the AhsayCBS web console, navigate to **Monitoring > Replication Logs > Replication Receiving**.



AhsayCBS

Replication Sending **Replication Receiving** Activities Log

View all the logs of receiver on this server below.

Replication Received Log

Filter: Type: View: Page:

Timestamp	Type	Message
20/02/2017 11:03:15	ListFilesInfo	Listing 'C:\Program Files\AhsayCBS\system\rps\rcvshome\steven\files\l' ...
20/02/2017 11:03:15	ReceiveFileInfo	Received 'C:\Program Files\AhsayCBS\system\rps\rcvshome\steven\files\settings\test1487559791992.dummy' (10, 2017-02-20 11:02)
20/02/2017 11:03:15	DeleteFileInfo	Deleting 'C:\Program Files\AhsayCBS\system\rps\rcvshome\steven\files\settings\test1487559791992.dummy' ...
20/02/2017 11:03:15	DeleteFileInfo	Deleting 'C:\Program Files\AhsayCBS\system\rps\rcvshome\steven\files\settings' ...
20/02/2017 11:03:21	ReplicateStart	[Start] Replication

Viewing option

Use the drop-down filters at the top right corner to filter the desired replication receiving logs:

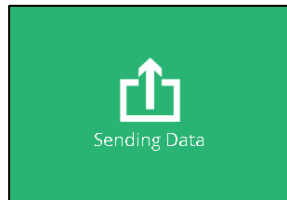
Receiver Name	Select the receiver name of whom the replication data is from
Type	Select the type of replication log to display
View	Select a specified date or range of time of the replication logs


Extract from AhsayCBS Replication Server

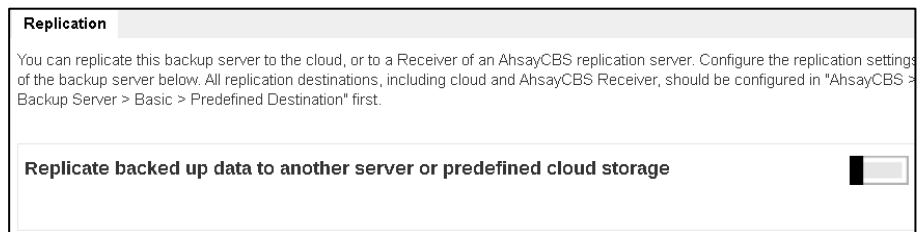
1. Follow the steps below to disable the replication service on both the Backup Server and the Replication Server.

④ To Disable on the Backup Server Side

- iii. Click on the **Sending Data** icon under the Replication section on the AhsayCBS web console of the backup server.

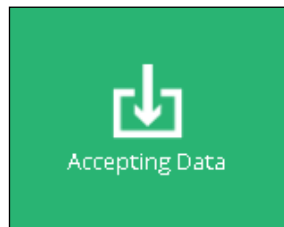


- iv. Click the  button in the **Replicate individual backup sets** section to turn the replication feature off. You will then see the configuration menu as shown.

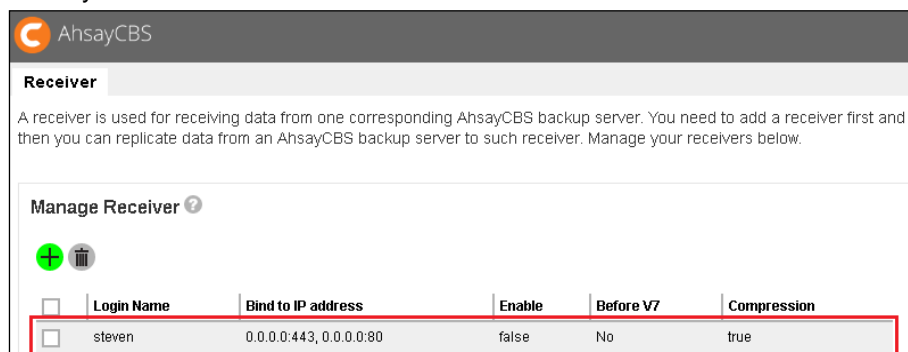


④ To Disable on the Replication Server Side

- i. Click On the replication receiving end, go to **Replication > Accepting Data** on the AhsayCBS web console to create a replication user account.



- ii. Click on the replication receiver item under the **Manage Receiver** section which you wish to turn off.



- iii. Uncheck the **Enable Replication** checkbox under the **Receiver User Account** section.

Edit Receiver

Edit the details of this receiver.

Receiver User Account

☐ Enable Replication

Login Name
steven

Password

Alias

2. Go to the Replication Server web console > **Accepting Data > Manage Receiver > %receiver_name%**.

AhsayCBS

Receiver

A receiver is used for receiving data from one corresponding AhsayCBS backup server. You need to add a receiver first and then you can replicate data from an AhsayCBS backup server to such receiver. Manage your receivers below.

Manage Receiver ?

<input type="checkbox"/>	Login Name	Bind to IP address	Enable	Before V7	Compression
<input type="checkbox"/>	steven	0.0.0.0:443, 0.0.0.0:80	true	No	true

3. Locate the **Restore** section at the bottom of the page.

Restore

Snapshot

Current

2017-01-06-18-20-59

4. Click on the Snapshot **"Current"**, you will see all the replicated users.

5. Select the user(s) that you want to recover, select all if you want to recover all the users for the Backup Server.

Restore Path

<input type="checkbox"/>	User
<input type="checkbox"/>	a1
<input type="checkbox"/>	a2
<input type="checkbox"/>	a3
<input type="checkbox"/>	aaa
<input type="checkbox"/>	acbwin
<input type="checkbox"/>	emilytest
<input type="checkbox"/>	mini
<input type="checkbox"/>	mininas
<input type="checkbox"/>	miniwin

6. Enter the path you want to restore the data to (e.g. D:\Restore).

Restore Path

D:\Restore

7. Click the  button at the bottom right corner to start the restoration.

8. It will then go back to the **Edit Receiver** page and you will see the restore progress under the **Restore** section.

Restore

Restore Path

D:\Restore\Retention_Current

Restoring C:\Program Files\AhsayCBS\system\trps\rcvshome\stevent\app\system\cbs\Installers\ROOT\component

Stop

9. When you see the **Finished restoration !!** message, the restore is completed.

Restore

Finished restoration !!

10. The data of the selected users and the server configuration are restored to the specified restore path on the Replication Server.

You will find folder structure as:

- **D:\Restore\Retention_Current\system**
(It contains "CBS_HOME\conf" and "SYSTEM_HOME".)
- **D:\Restore\Retention_Current\users**
(It contains user folders.)

Name	Date modified	Type
 system	1/17/2017 4:49 PM	File folder
 users	1/17/2017 5:17 PM	File folder

11. Copy the whole restored folder "**D:\Restore**" to a free space on your Backup Server first, e.g. C:\Desktop.
12. After extracting the replication data, you can follow the instructions in [Restore Replication Data to the Backup Server](#) to restore the replication data to your AhsayCBS backup server.

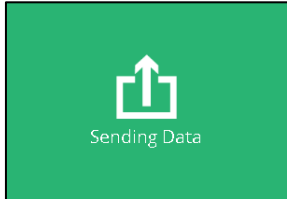

-OR-

Refer to the [Restore Raw Data Using AhsayOBM / AhsayACB](#) if you wish to recover the raw data alone without restoring them to AhsayCBS.

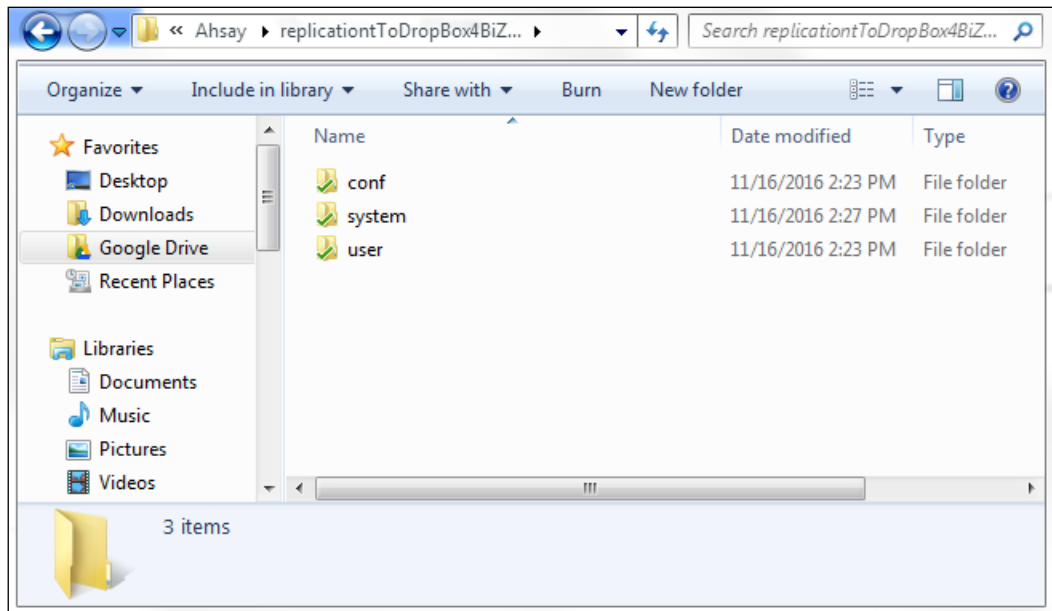
Extract from a Predefined Destination - Cloud storage

In this example, we use Google drive as the cloud storage. Other cloud storage should have similar capability.

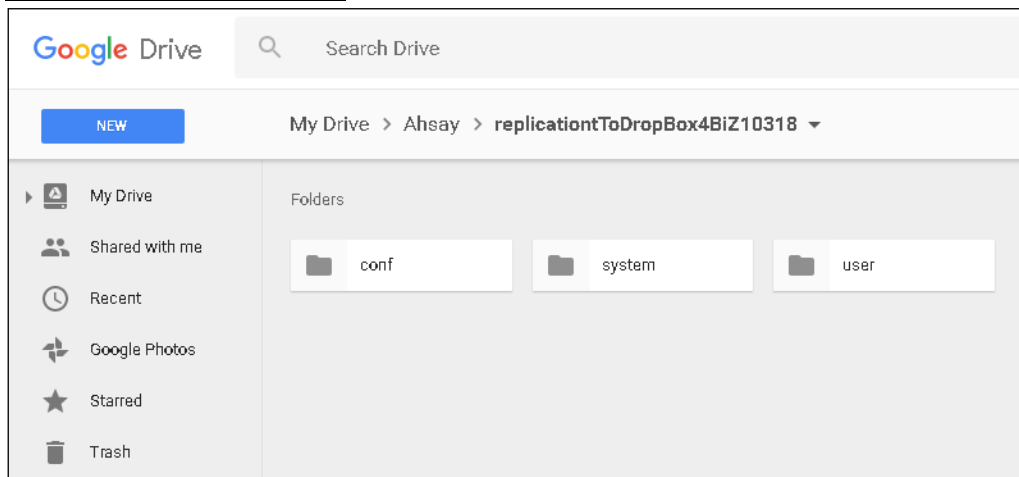
Prerequisite: Google drive is installed

1. Disable the replication on the Backup Server by following the steps below.
 - i. Click on the **Sending Data** icon under the Replication section on the AhsayCBS web console of the backup server.

 - ii. Click the  button in the **Replicate individual backup sets** section to turn the replication feature off. You will then see the configuration menu as shown.
2. Go to your Google drive folder or login to the Google drive web interface to access to your storage.
3. You will be able to find the following path such as **Google drive > Ahsay > replication**. ('replication' is the replication profile name)

Google drive file explorer



Google drive web interface



4. You will see the following 3 folders.
 - ▶ **conf**
 - ▶ **system**
 - ▶ **user**
5. You may download all the 3 folders to your local drive if you need to restore all the files. Select the folder to download according to your requirement.

Note

The **conf** and **system** folders are AhsayCBS configuration or system related files. The **user** folder contains the replicated user folders.

6. After extracting the replication data, you can follow the instructions in [Restore Replication Data to the Backup Server](#) to restore the replication data to your AhsayCBS backup server.



-OR-

Refer to the [Restore Raw Data Using AhsayOBM / AhsayACB](#) if you wish to recover the raw data alone without restoring them to AhsayCBS.

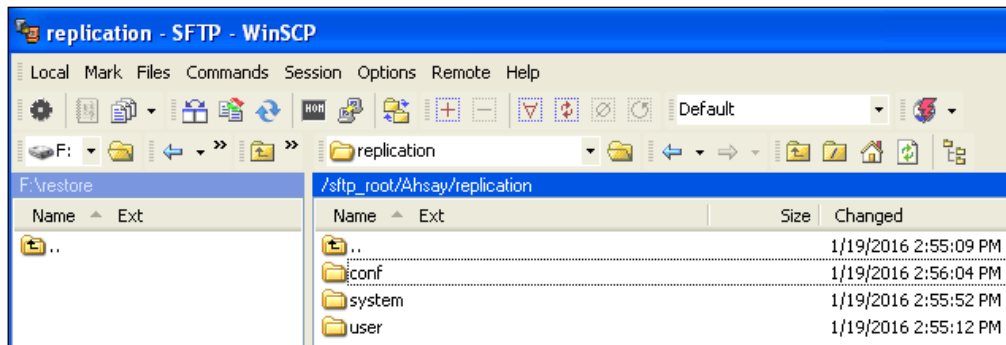
Extract from the FTP/SFTP

In this example, we use SFTP server as an example, the restore method is basically the same for FTP and SFTP.

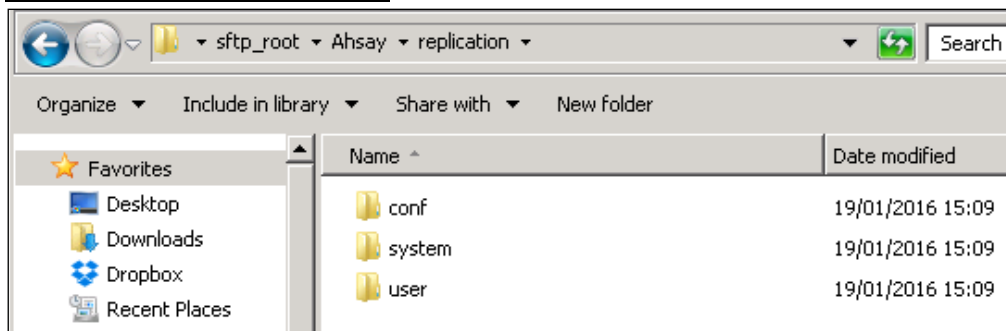
Assumption: The WinSCP is installed on the system. Other FTP tools can be used.

1. Disable the replication on the Backup Server by following the steps below.
 - i. Click on the **Sending Data** icon under the Replication section on the AhsayCBS web console of the backup server.

 - ii. Click the  button in the **Replicate individual backup sets** section to turn the replication feature off. You will then see the configuration menu as shown.
2. Login to the WinSCP and locate the replication folder. If the FTP/SFTP server is on your LAN, you may map the drive on your FTP/SFTP server.
3. You will be able to find the following path such as /sftp_root/Ahsay/replication.
(‘replication’ is the replication profile name)

WinSCP



Mapped the SFTP share folder



4. You will see the following 3 folders.

- ▶ **conf**
- ▶ **system**
- ▶ **user**

5. You may download all the 3 folders to your local drive if you need to restore all the files. Select the folder to download according to your requirement.

Note

The **conf** and **system** folders are AhsayCBS configuration or system related files. The **user** folder contains the replicated user folders.

6. After extracting the replication data, you can follow the instructions in [Restore Replication Data to the Backup Server](#) to restore the replication data to your AhsayCBS backup server.

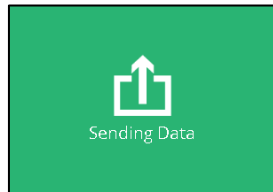
-OR-


Refer to the [Restore Raw Data Using AhsayOBM / AhsayACB](#) if you wish to recover the raw data alone without restoring them to AhsayCBS.

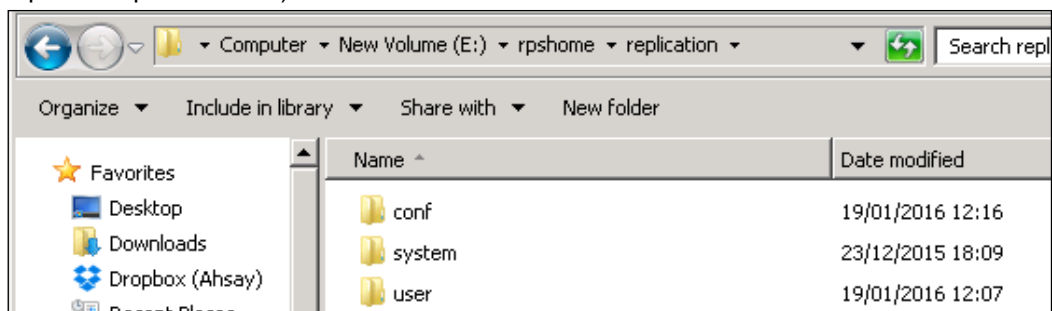
Extract from the Local/Mapped Drive/Removable Drive

In this example, we use local drive as an example, the restore method is basically the same for mapped drive and removable drive.

1. Disable the replication on the Backup Server by following the steps below.
 - i. Click on the **Sending Data** icon under the Replication section on the AhsayCBS web console of the backup server.



- ii. Click the  button in the **Replicate individual backup sets** section to turn the replication feature off. You will then see the configuration menu as shown.
2. Open your replication home folder e.g.: E:\rpshome\replication ('replication' is the replication profile name).



3. You will see the following 3 folders.
 - ▶ **conf**
 - ▶ **system**
 - ▶ **user**
4. You may copy all the 3 folders if you need to restore all the files on your AhsayCBS. Select the folder to download according to your requirement.

Note

The **conf** and **system** folders are AhsayCBS configuration or system related files. The **user** folder contains the replicated user folders.

5. After extracting the replication data, you can follow the instructions in [Restore Replication Data to the Backup Server](#) to restore the replication data to your AhsayCBS backup server.

-OR-

Refer to the [Restore Raw Data Using AhsayOBM / AhsayACB](#) if you wish to recover the raw data alone without restoring them to AhsayCBS.

Extract from v6 Replication

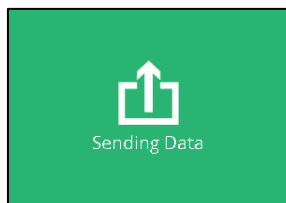
This section provides steps on restoring replication data in v6 format to a v6 version backup server.


Important

Please be reminded that the steps in this section apply only if you are restoring the replication data in v6 data format back to a backup server in v6 version.



If the backup server has been upgraded to v7, the replication data in v6 data format cannot be restored in the upgraded backup server due to the fundamental differences of the system structure and data format between v6 and v7. If you have upgraded your backup server to v7, you will have to configure the replication receiver again and make sure to select the Backup Server Version as 7 during the receiver creation process. Refer to the [Create a Replication User Account](#) section for further details on the configuration.

1. Disable the replication on the Backup Server by following the steps below.
 - i. Click on the **Sending Data** icon under the Replication section on the AhsayCBS web console of the backup server.



- ii. Click the  button in the **Replicate individual backup sets** section to turn the replication feature off. You will then see the configuration menu as shown.
2. Go to the Replication Server web console, then navigate to **Replication > Accepting Data > Manage Receiver > %receiver_name%**.
3. Locate the **Restore** section at the bottom of the page.

Traffic Limit Setting

<input type="checkbox"/>	Name	From	To	Maximum Transfer
--------------------------	------	------	----	------------------

Restore

Finished restoration !!

Snapshot

Current

2016-10-20-18-05-31

✓ X ?

4. Click on the Snapshot “Current”, you will see all the replicated users.
5. Select the user(s) that you want to recover, select all if you want to recover all the users for the Backup Server.

6. Enter the path you want to restore the data to (e.g. F:\v6rps).

The screenshot shows a window titled "Restore Path". It contains a text input field with the value "f:\v6rps". Below the input field, there are two green checkmark icons. To the right of the checkmarks, there is a table with two columns: "User" and "user1".

User
user1

7. Click the [Restore] button to start.
8. It will then go back to the "Edit Receiver" page and you will see the restore progress under the "Restore" section.

The screenshot shows a window titled "Cyclic Redundancy Check (CRC) Checking". Inside, there is a section titled "Restore". Below the title, it shows the "Restore Path" as "f:\v6rps\Retention_Current". A red box highlights the text "Restoring F:\rcvshome\v6replication\files\C%3A\Program Files\AhsayOBS and AhsayRPS\java\lib\ext". Below this, there is a "Stop" button.

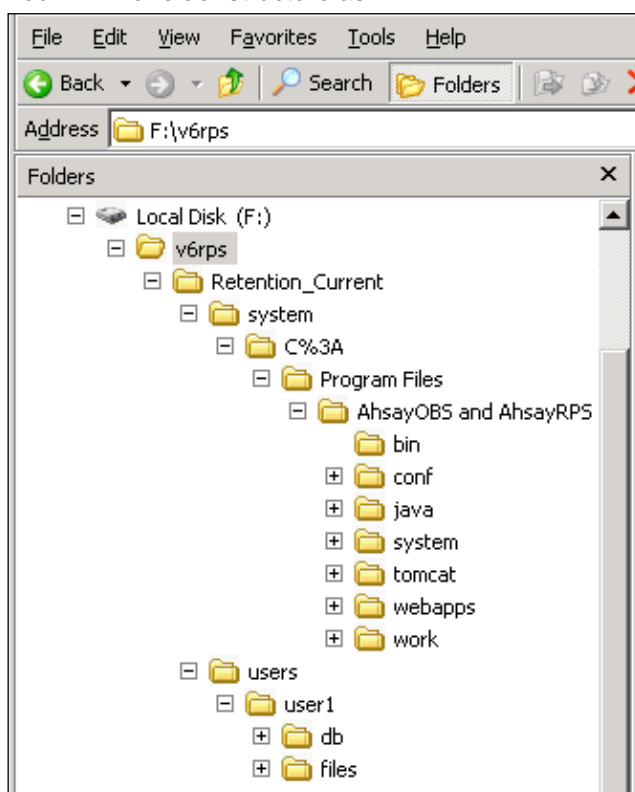
9. Once you see the "**Finished restoration !!**" message, the restore is completed.

The screenshot shows a window titled "Cyclic Redundancy Check (CRC) Checking". Inside, there is a section titled "Restore". A red box highlights the text "Finished restoration !!". Below this, there is a section titled "Snapshot" with a table showing the "Current" snapshot and its timestamp "2016-01-19-18-03-56".

Snapshot
Current
2016-01-19-18-03-56

10. The data of the selected users and the server configuration are restored to the restore path on Replication Server.

11. You will find folder structure as:



Note

The folder F:\v6rps\Retention_Current\ contains all the restore materials for your v6 OBS. Under the folder, F:\v6rps\Retention_Current\system, you can see the folder “C%3A” which indicate the drive letter of the installation, %3A is the URL encoding for the colon character which means “C:”.

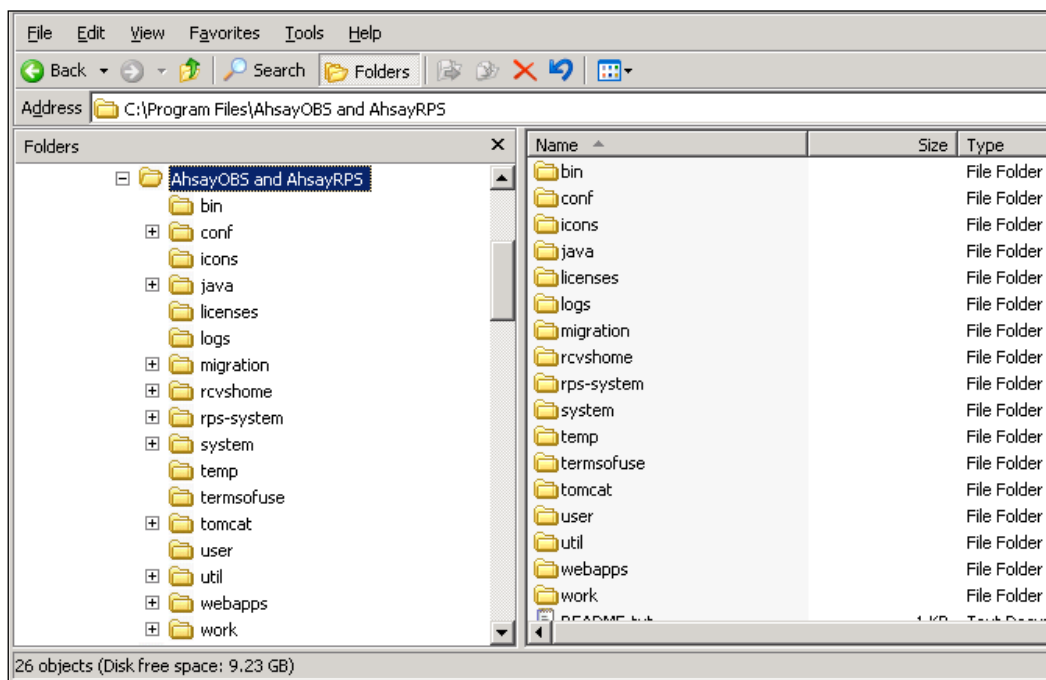
Here is a summary of the restored folders under the path

“F:\v6rps\Retention_Current\system\C%3A\Program Files\AhsayOBS and AhsayRPS”:

Folder name	Description
bin	It contains startup scripts.
conf	OBS server configuration files.
java	Bundled Java for the OBS.
system	System configuration and policy settings.
tomcat	Bundled Tomcat for the OBS.
webapps	OBS and RPS application folders, OBC installer files etc.
work	Cache folder.

12. Copy the whole restored folder “F:\v6rps” to your OBS machine.

13. Locate the OBS installation directory in the OBS machine, **conf** folder, **system** folder and **user** folder.



In this case, all the 3 folders are located in the same directory. If you have changed the OBS system home or user home folder, you can check this information in your **OBS Management Console > Manage System > Server Configuration** page.

14. After extracting the replication data, you can follow the instructions in [Restore Replication Data to the Backup Server](#) to restore the replication data to your AhsayCBS backup server.

-OR-

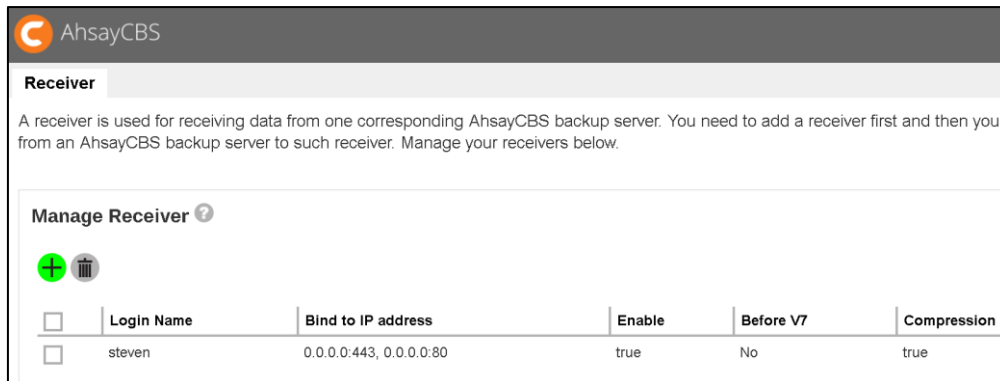
Refer to the [Restore Raw Data Using AhsayOBM / AhsayACB](#) if you wish to recover the raw data alone without restoring them to AhsayCBS.

Extract Snapshot from Retention Area

A snapshot of the replicated data is taken and stored in the retention area for a certain period of time of your configuration. This gives you an extra layer of protection in case you need to retrieve the old replication data. For details of the retention policy setting, refer to the [Retention Setting](#) under the [Create a Replication User Account](#) section.

Follow the instructions below to recover replication data from the retention area.

1. Go to the Replication Server web console > **Accepting Data** > **Manage Receiver** > **%receiver_name%**.



AhsayCBS

Receiver

A receiver is used for receiving data from one corresponding AhsayCBS backup server. You need to add a receiver first and then you can restore data from an AhsayCBS backup server to such receiver. Manage your receivers below.

Manage Receiver ?

+ -

<input type="checkbox"/>	Login Name	Bind to IP address	Enable	Before V7	Compression
<input type="checkbox"/>	steven	0.0.0.0:443, 0.0.0.0:80	true	No	true

2. Locate the **Restore** section at the bottom of the page and you will see the snapshots that have been captured for your replication data.



Restore

Snapshot

Current
2017-02-24-00-00-11
2017-02-20-11-03-15

3. The past snapshots are named in date and time when it was captured. Click on the desired snapshot you wish to extract the replication data from.

4. Select the user(s) that you want to recover, select all if you want to recover all the users for the Backup Server.

Restore Path

<input type="checkbox"/>	User
<input type="checkbox"/>	a1
<input type="checkbox"/>	a2
<input type="checkbox"/>	a3
<input type="checkbox"/>	aaa
<input type="checkbox"/>	acbwins
<input type="checkbox"/>	emilytest
<input type="checkbox"/>	mini
<input type="checkbox"/>	mininas
<input type="checkbox"/>	miniwin


5. Enter the path you want to restore the data in the retention area (e.g. E:\Retention).

Restore Path

E:\Retention

Note

Do not restore the retention data to the same folder where you normally store the extracted replication data so as to avoid any possible confusion.

6. Click the  button at the bottom right corner to start the restoration.
7. It will then go back to the **Edit Receiver** page and you will see the restore progress under the **Restore** section.

Restore

Restore Path

E:\Retention\Retention_2017-02-24-00-00-11

Restoring C:\Program Files\AhsayCBS\system\rcvshome\steven\app\system\cbs\MessageLog

Stop

8. When you see the **Finished restoration !!** message, the restore is completed.

Restore

Finished restoration !!

9. The data of the selected users and the server configuration are restored to the specified restore path on the Replication Server.

You will find folder structure as:

- **E:\Retention\Retention_YYYY-MM-DD-HH-MM-SS\system**
(It contains “CBS_HOME\conf” and “SYSTEM_HOME”.)
- **E:\Retention\Retention_YYYY-MM-DD-HH-MM-SS\users**
(It contains user folders.)

Name	Date modified	Type
 system	1/17/2017 4:49 PM	File folder
 users	1/17/2017 5:17 PM	File folder

10. Copy the whole restored folder “**E:\Retention**” to a free space on your Backup Server first, e.g. C:\Desktop.
11. After extracting the replication data, you can follow the instructions in [Restore Replication Data to the Backup Server](#) to restore the replication data to your AhsayCBS backup server.

-OR-

Refer to the [Restore Raw Data Using AhsayOBM / AhsayACB](#) if you wish to recover the raw data alone without restoring them to the backup server.

Restore Replication Data

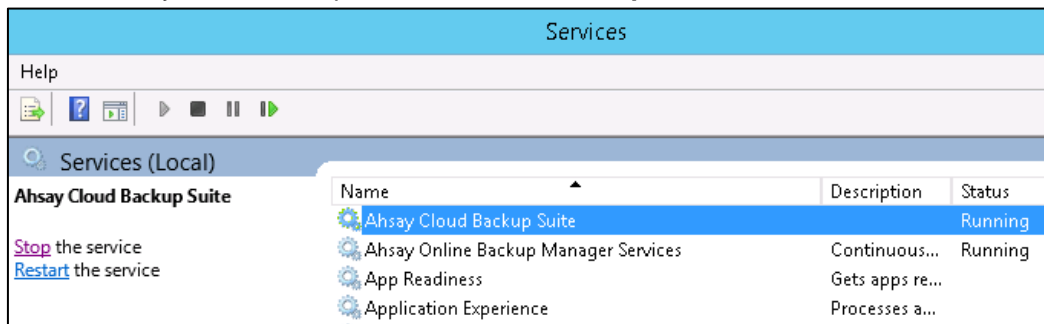
Restore Replication Data to the Backup Server

Important

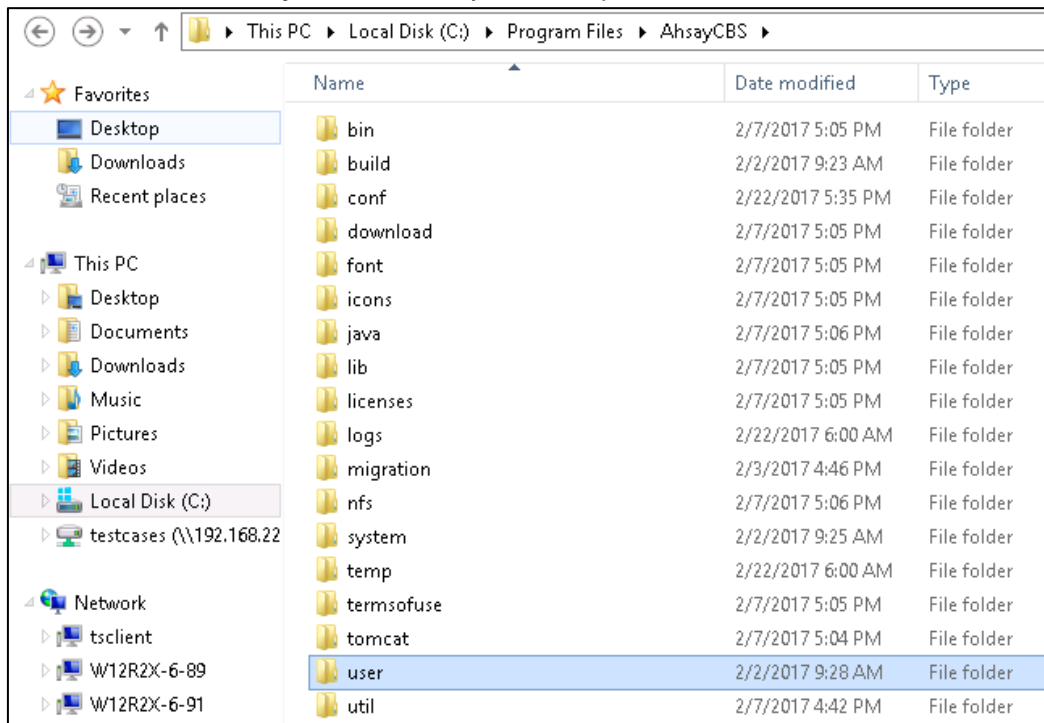
Make sure you have extracted the replication data from the replication destination before you start with the restore. Refer to the instructions in the [Extract Data from the Replication Destination](#) for details.

Follow the instructions below to restore replication data to your AhsayCBS backup server.

1. Stop the AhsayCBS service on the Backup Server by going to the **Services** console, click on Ahsay Cloud Backup Suite then click the **Stop** button on the left.



2. If you want to recover the user data, copy the `%user_name%` folder from the `"%Restored_folder%\Retention_Current\users"` folder, then paste it to the User Home folder located in `"\AhsayCBS\user\"` on your backup server machine.



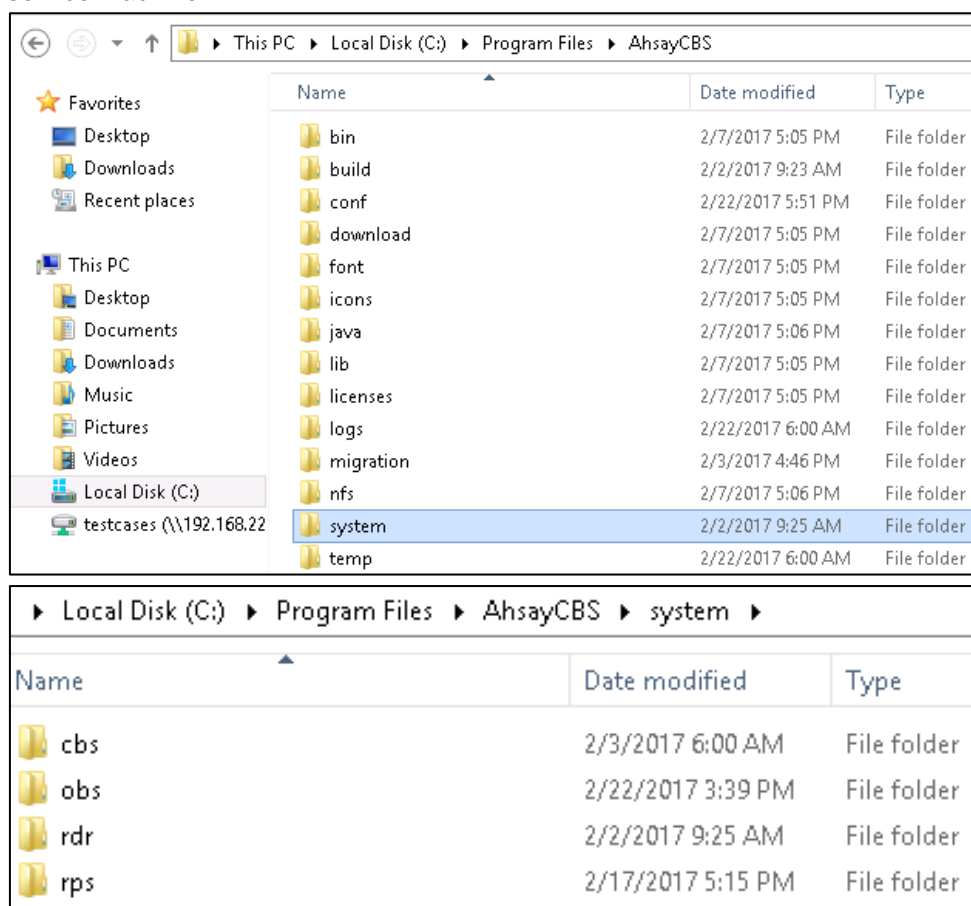
Local Disk (C:) > Program Files > AhsayCBS > user >		
Name	Date modified	Type
backup user 1	2/20/2017 4:28 PM	File folder
backup user 2	2/3/2017 5:35 PM	File folder
backup user 3	2/22/2017 5:40 PM	File folder

3. If you want to recover the server configuration, extract the "%Restored_folder%\Retention_Current\system\conf\conf.zip", then unzip the file and replace all the unzipped files with those located on "\AhsayCBS\conf".

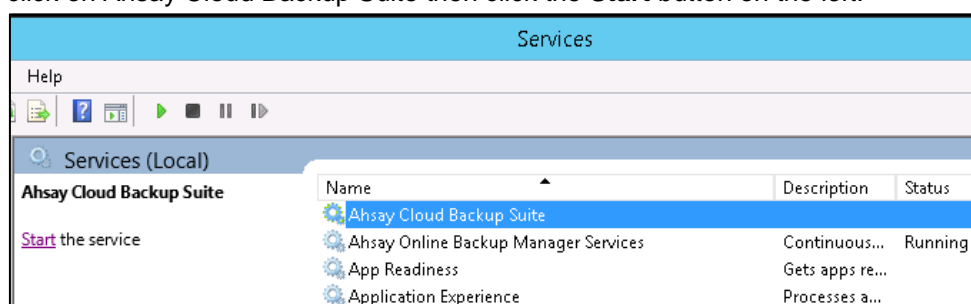
This PC > Local Disk (C:) > Program Files > AhsayCBS >		
Name	Date modified	Type
bin	2/7/2017 5:05 PM	File folder
build	2/2/2017 9:23 AM	File folder
conf	2/22/2017 5:43 PM	File folder
download	2/7/2017 5:05 PM	File folder
font	2/7/2017 5:05 PM	File folder

This PC > Local Disk (C:) > Program Files > AhsayCBS > conf		
Name	Date modified	Type
Backup	2/22/2017 6:00 AM	File folder
acb-config.xml	2/20/2017 11:08 AM	XML Document
afc.opt	2/20/2017 11:08 AM	OPT File
autoDiscovery.xml	2/20/2017 11:08 AM	XML Document
autoUpdate.bdb	2/20/2017 11:08 AM	BDB File
ca.crt	2/20/2017 11:08 AM	Security Certificate
Catalina	2/20/2017 11:08 AM	File
catalina.policy	2/20/2017 11:08 AM	POLICY File
catalina.properties	2/20/2017 11:08 AM	PROPERTIES File
cbs.json	2/22/2017 6:00 AM	JSON File
cbs.json.1	2/21/2017 6:01 AM	1 File
cbs.json.2	2/20/2017 11:08 AM	2 File

- If you want to recover the system home, copy the content of the "**%Restored_folder%\Retention_Current\system\system**" folder in the restored folder, then paste it in the system folder located in "**AhsayCBS\system**" on your backup service machine.



- Restart the AhsayCBS service on the Backup Server by going to the **Services** console, click on Ahsay Cloud Backup Suite then click the **Start** button on the left.



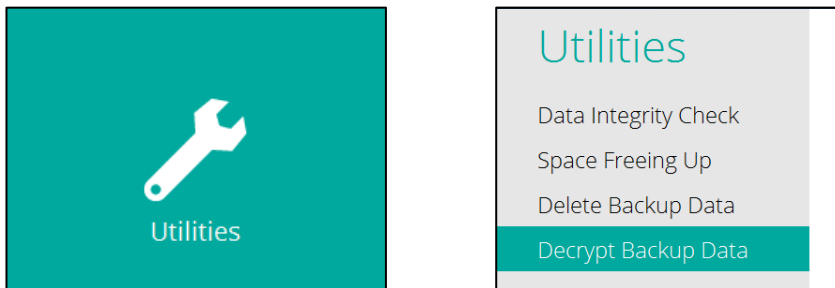
Restore Raw Data Using AhsayOBM / AhsayACB

Besides restoring the replication data back to the backup server, you can also restore the raw data alone using either of the client backup agent (AhsayOBM / AhsayACB).

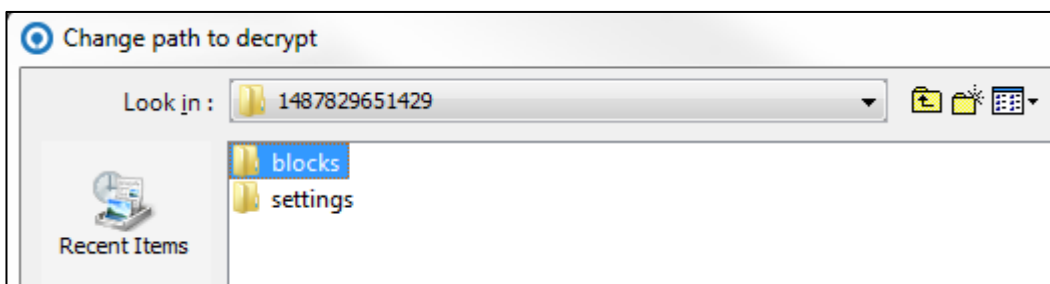
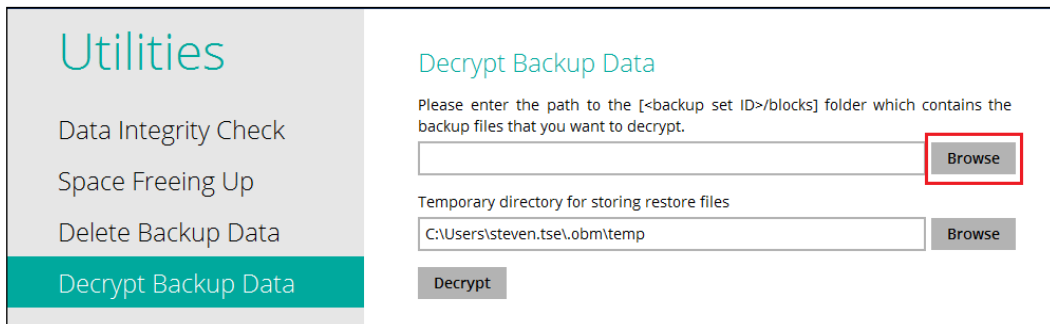
Make sure you have extracted the replication data from the replication destination before you start with the restore. Refer to the instructions in the [Extract Data from the Replication Destination](#). Once you have extracted the replication data, follow the steps below to restore the raw data.

AhsayOBM is used in the following instructions for decrypting the data. The procedures work basically the same for AhsayACB.

1. Log in to the AhsayOBM client backup agent, then navigate to the **Utilities** icon on the main interface, then go to the **Decrypt Backup Data** section.



2. Click Browse to locate the backup set you wish to decrypt replication data you have extracted, then navigate to the [%backup set ID%/blocks] level of the backup set you wish to restore data from.



3. Click **Decrypt** to proceed.

Utilities

- Data Integrity Check
- Space Freeing Up
- Delete Backup Data
- Decrypt Backup Data**

Decrypt Backup Data

Please enter the path to the [<backup set ID>/blocks] folder which contains the backup files that you want to decrypt.

Temporary directory for storing restore files

4. Select the file(s)/folder(s) you wish to restore from the selected source, then click Next to proceed.

Select Your Files To Be Restored

Select what to restore

[Show filter](#)

Folders	Name	Size	Date modified
decrypt_destination	<input type="checkbox"/> Backup Process Overview		
C:\			
Users			
steven.tse			
Desktop			
Backup f			
Documents			
Music			
Pictures			
Videos			

5. Select to restore to the Original location or an alternate location of your choice. Click **Restore** to start the decryption process when you have done with the settings.

Choose Where The Files To Be Restored

Restore files to

☒ Original location

☐ Alternate location

[Show advanced option](#)

8 Configuring Redirector

As your business keeps growing, the capacity of an AhsayCBS machine may reach its physical limit such as the I/O, disk space, etc. In that case, you may consider adding a machine to solve the problem.

A common practice for server administrator will name their server in the following way when a new server is added for backup service, for example:

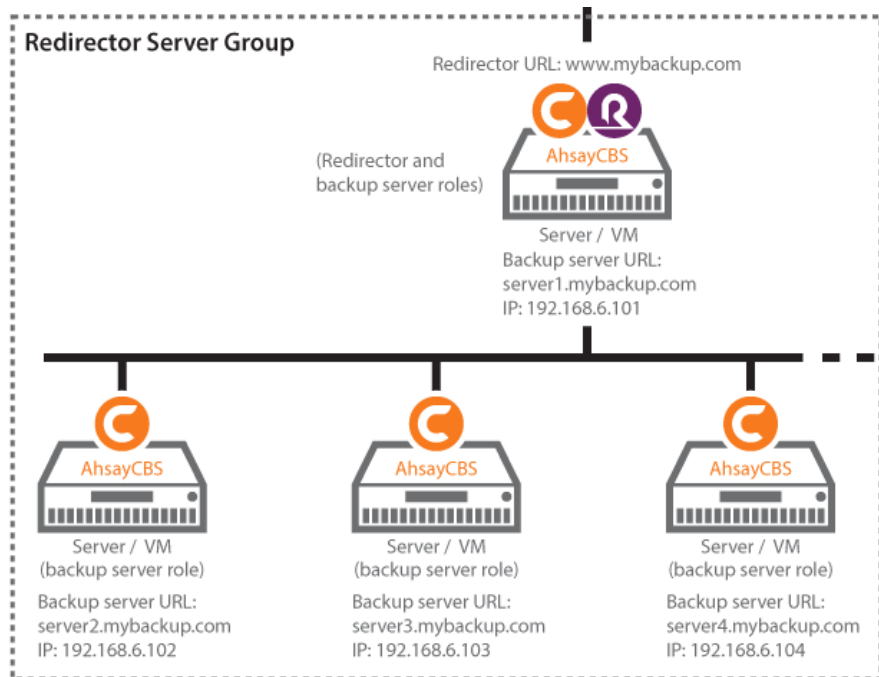
```
server1.mybackup.com
server2.mybackup.com
server3.mybackup.com
:
```

With mybackup.com being the domain name of the backup service in the above example. This is only a solution to resolve physical limit of a server but is not flexible to apply into a high scalable backup system. This is because if a user has hosted in, for example, server1.mybackup.com and later on wants to add more backup quota, however, only server2.mybackup.com has enough storage for expansion. In that case, you will need to migrate the user to server2 and your backup users will need to change the backup server URL from server1 to server2 in the login screen of the client interface to get access to the new server.

A high scalable backup system should make this kind of transition seamless to users, for example, you can set up a domain name www.mybackup.com for your client to connect which is able to redirect users to the correct backup server to backup. Our Redirector is exactly designed to work for this solution.

By setting up a Redirector Server:

1. All new clients can use the backup URL e.g.: www.mybackup.com when they set up the backup client interface.
2. Administrator can add backup machines to the Redirector as the number of user grows.



The dotted area shows the redirector server group.

server1.mybackup.com
server2.mybackup.com
server3.mybackup.com

:
:
:

As the CPU utilization for a Redirector Server is low, you can dedicate one of the AhsayCBS as the redirector host. In the above example, server1.mybackup.com also serves as a redirector host. The domain name www.mybackup.com is also pointed to this server.

Administrator will require setting up the following in the DNS, for example:

Name	Type	Value
www.mybackup.com.	CNAME	server1.mybackup.com.
server1.mybackup.com.	A record	192.168.6.101
server2.mybackup.com.	A record	192.168.6.102
server3.mybackup.com.	A record	192.168.6.103
server4.mybackup.com.	A record	192.168.6.104

Notes:

1. The IP address of server1 to server4 are ranged from 192.168.6.101 to 192.168.6.104.
2. The Redirector Server is hosted on the server1.mybackup.com machine.

In the following chapters, we shall guide you to set up a Redirector host, and how to join your existing servers to this Redirector host.

Limitation

1. Existing users can continue to back up to their existing server, for example, server2.mybackup.com in the above example. However if they want to use the redirector feature, they are required to change the connecting host name to e.g.: www.mybackup.com. The redirector setup can only benefit new users as you will distribute the URL, i.e. www.mybackup.com to new users, you may not want to bother the existing users on applying the settings immediately.
2. Administrators need to ensure the same user name (case sensitive) has not been used within the backup servers in the same redirector group. This limitation includes all the users created by the resellers.

License information

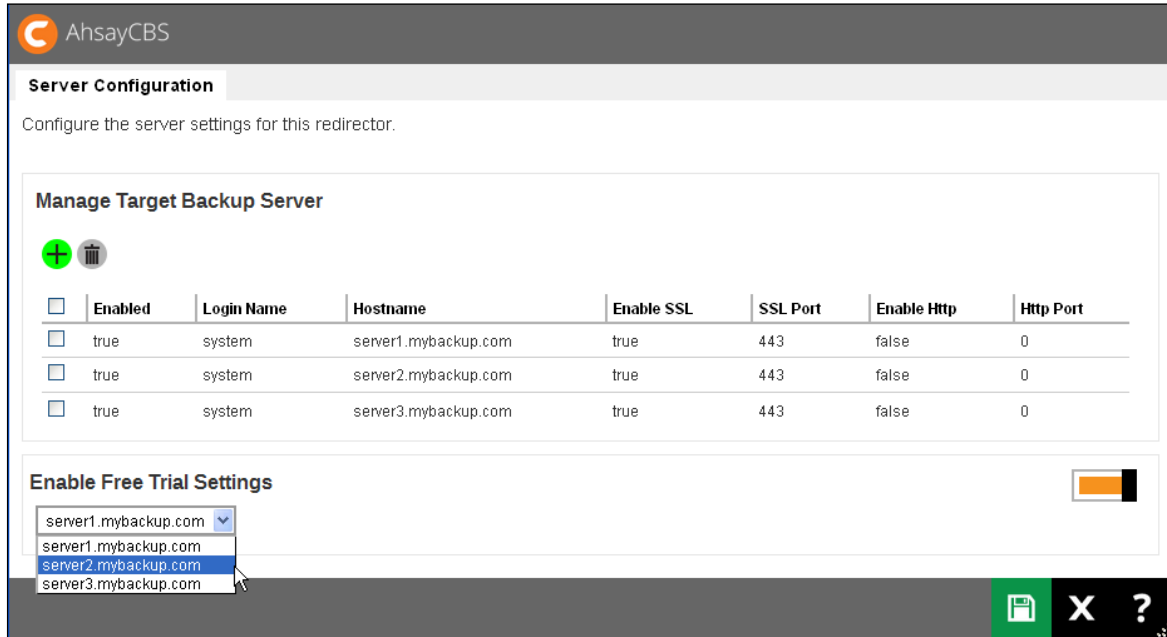
The pricing unit of AhsayCBS Redirection Server module is per device to be redirected.

For meter key inquiries please contact the Sales team at Ahsay by email at sales-kb@ahsay.com or call our International Sales Hotline +852 3580 8091.

Hosting a Redirector

First of all, you need to assign an AhsayCBS to be set up as a Redirector role. In our example, server1.mybackup.com also serves as a redirector host. The domain name www.mybackup.com is also pointed to this server.

In the following steps, we will set up the connection channel between the redirector host and the backup servers. In the AhsayCBS of server1, you need to register your Backup Server(s) with the Redirector in AhsayCBS management console under **Redirection -> Hosting a Redirector**.



1. Add a Backup Server in the Redirector by clicking the **Create** button, then entering the login credentials and host name, and the ports of that Backup Server.
2. Repeat the above steps until all the Backup Servers in your environment are registered with the AhsayCBS with the Redirector role.

Option: You can dedicate one of the AhsayCBS (Backup Server) to host free trial users, by enabling this feature and assign one of your Backup Servers in the list.

Joining Redirector

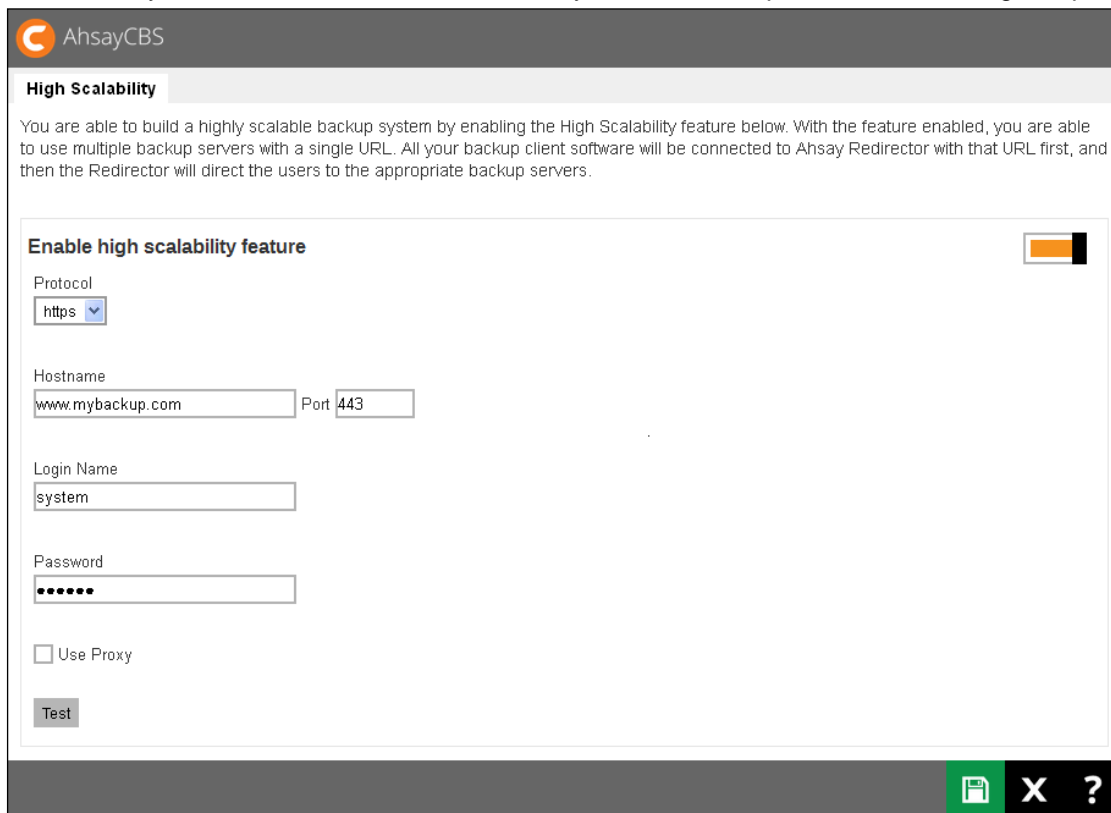
In the following steps, we will set up the connection channel between the redirector host and the backup servers.

Limitation:

Administrators need to ensure the same user name (case sensitive) has not been used within the backup servers in the same redirector group, this limitation includes all the users created by the resellers.

To join your Backup Servers to a Redirector, please enter your AhsayCBS management console under **Redirection -> Joining Redirectors**.

Note: Even your redirector is hosted in server1, you still need to perform the following setup.



The screenshot shows the AhsayCBS management console interface for configuring High Scalability. The title bar at the top says "AhsayCBS". Below it, the section is titled "High Scalability". A descriptive text states: "You are able to build a highly scalable backup system by enabling the High Scalability feature below. With the feature enabled, you are able to use multiple backup servers with a single URL. All your backup client software will be connected to Ahsay Redirector with that URL first, and then the Redirector will direct the users to the appropriate backup servers." Below this text is a form titled "Enable high scalability feature". The form includes a "Protocol" dropdown menu set to "https", a "Hostname" text field with "www.mybackup.com", a "Port" text field with "443", a "Login Name" text field with "system", and a "Password" text field with masked characters. There is an unchecked checkbox for "Use Proxy" and a "Test" button. A toggle switch for the "Enable high scalability feature" is located in the top right corner of the form area. At the bottom right of the console, there are three buttons: a green "Save" button, a red "X" button, and a blue "?" button.

1. Turn on the Enable high scalability feature button.
2. Enter the protocol, host name, and port number of the Redirector machine.
3. Enter the login credentials to the Redirector machine.
4. Repeat the above steps on all other backup server that needs to join the redirector server.

Advanced Setup

Setup Wild Card Certificate

In the Redirector with a number of Backup Servers setup scenario, you need to apply a wild card certificate for all your AhsayCBS servers. When you add a new backup server or Redirector into the redirector server group, you need to apply the wild card certificate to the new server. This is cost efficient and do not require to purchase a new certificate for a new server.

Setup Replication in Redirector Server Group

Since the user profile and local user data are hosted on individual Backup Servers, if you need to setup replication in this environment, you need to setup a dedicated replication profile for each Backup Server. In our example, 4 dedicated replication profiles are required to setup.

Note: The replication can be replicated to another replication server or predefined storage.

For more information about the replication setup, please refer to the [CONFIGURING REPLICATION](#) section for details.

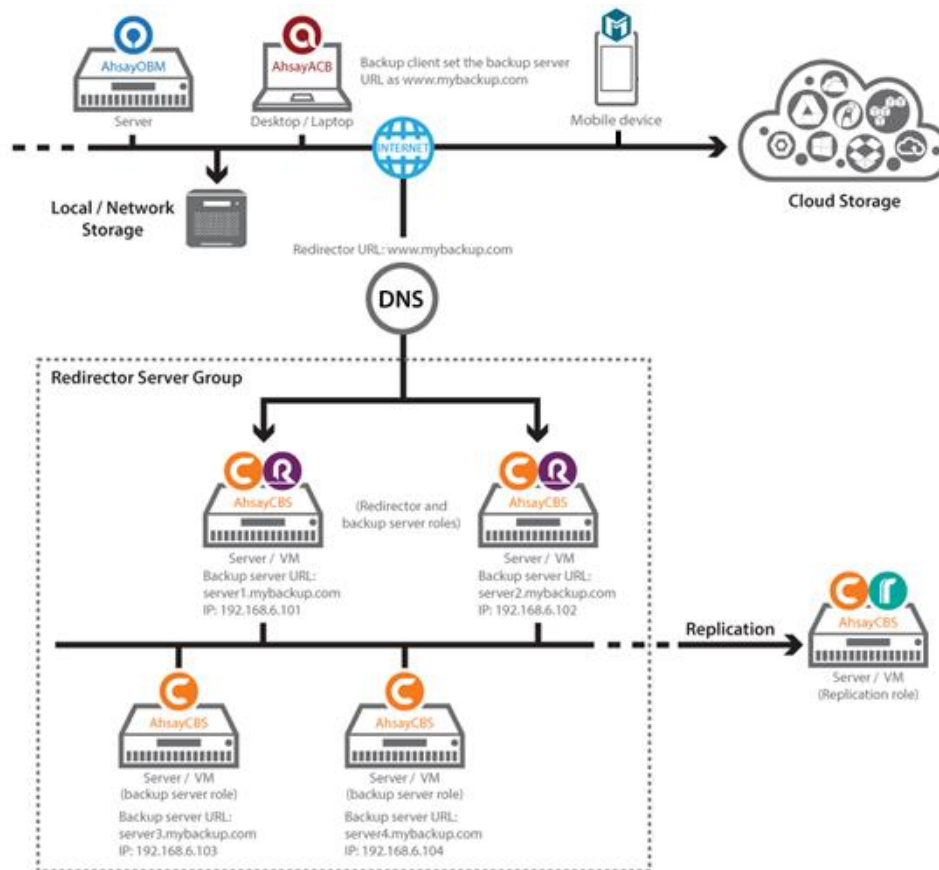
Multiple Redirector Setup

The following is an example on setting up a multiple redirector server group. The main reason is to maintain a high availability redirector.

Assumption and requirement:

In this example, we assumed that you are using a DNS round robin setup, when there is a request from the Internet, e.g.: www.mybackup.com , it will be able to redirect either to the first redirector (e.g.: server1.mybackup.com) or second redirector (e.g.: server2.mybackup.com).

For each Redirector Server, it is required to have its own redirector license key. If you setup 2 Redirector Servers, you will need 2 times of your redirector licenses.



Administrator will require setting up the following in the DNS, for example:

Name	Type	Value
www.mybackup.com.	A record	192.168.6.101
www.mybackup.com.	A record	192.168.6.102
server1.mybackup.com.	A record	192.168.6.101
server2.mybackup.com.	A record	192.168.6.102
server3.mybackup.com.	A record	192.168.6.103
server4.mybackup.com.	A record	192.168.6.104

Notes:

1. The round robin setting is required to redirect the traffic to either server1.mybackup.com (192.168.6.101) or server2.mybackup.com (192.168.6.102).
2. The IP address of server1 to server4 are ranged from 192.168.6.101 to 192.168.6.104.
3. The Redirector Servers are hosted on the server1.mybackup.com and server2.mybackup.com machine.

When you configure the redirector hosting on the first redirector, which we have described in the [Hosting a Redirector](#) section, same configuration is required to apply on the second redirector.



Example:

AhsayCBS

Server Configuration


Configure the server settings for this redirector.


Manage Target Backup Server




<input type="checkbox"/>	Enabled	Login Name	Hostname	Enable SSL	SSL Port	Enable Http	Http Port
<input type="checkbox"/>	true	system	server1.mybackup.com	true	443	false	0
<input type="checkbox"/>	true	system	server2.mybackup.com	true	443	false	0
<input type="checkbox"/>	true	system	server3.mybackup.com	true	443	false	0

Enable Free Trial Settings





- server1.mybackup.com
- server2.mybackup.com
- server3.mybackup.com

On other backup servers, you need to join the redirector.


Example:


AhsayCBS

High Scalability

You are able to build a highly scalable backup system by enabling the High Scalability feature below. With the feature enabled, you are able to use multiple backup servers with a single URL. All your backup client software will be connected to Ahsay Redirector with that URL first, and then the Redirector will direct the users to the appropriate backup servers.

Enable high scalability feature






Protocol
 

Hostname
 Port

Login Name

Password

☐ Use Proxy

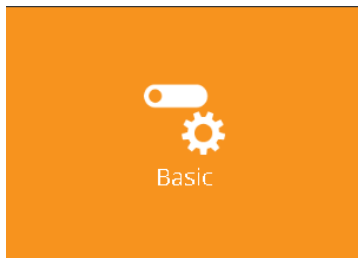
9 Monitoring Activities


Set up a Read-only Admin Account for Operators

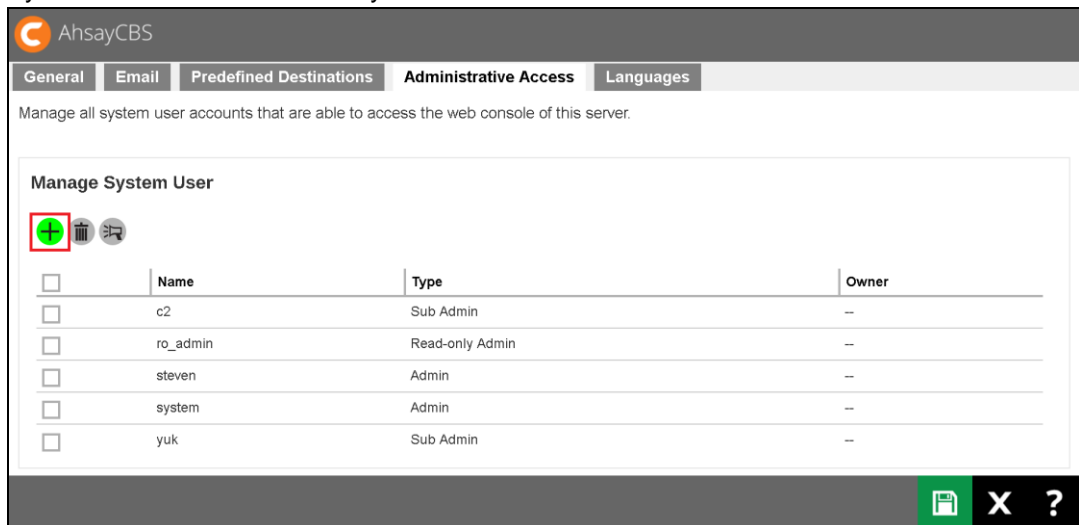
For daily monitoring on the AhsayCBS management console, you can assign your staff/operators with a read-only admin role account. This read-only admin role system account shares similar accessibility as its creator, except it has read-only permission. This feature is designed to help you with monitoring on the backup and restore jobs, Live Activities on the AhsayCBS server, Administration logs and Reporting etc.

Follow the steps below to create a system user with read-only admin role:

1. Click on the **Basic** icon under the **System Settings** section on the CBS main page.



2. Navigate to the **Administrative Access** tab, then click on the  button under Manage System User to create a new system user.



The screenshot shows the AhsayCBS web console. The top navigation bar includes tabs for General, Email, Predefined Destinations, Administrative Access (selected), and Languages. Below the tabs, a message states: "Manage all system user accounts that are able to access the web console of this server." The main section is titled "Manage System User" and contains a green plus button (highlighted with a red box), a trash icon, and a refresh icon. Below these icons is a table with the following data:

<input type="checkbox"/>	Name	Type	Owner
<input type="checkbox"/>	c2	Sub Admin	--
<input type="checkbox"/>	ro_admin	Read-only Admin	--
<input type="checkbox"/>	steven	Admin	--
<input type="checkbox"/>	system	Admin	--
<input type="checkbox"/>	yuk	Sub Admin	--

At the bottom right of the console, there are icons for a folder, a close button (X), and a help button (?).

3. Fill in the details of the system user profile on the page as shown below. Make sure you have selected **Read-only Admin** under the **Type** field.

Add new system user

Profile

Name

username



Password

Re-type Password

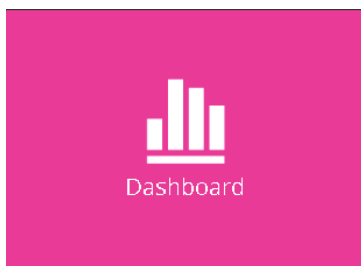
Type

Read-only Admin ▾

☒ Email me Consolidated Report

4. Click the  button then the  button at the bottom of the page to confirm. The system user with read-only admin role has been added.

Dashboard



The dashboard is a one-stop overview providing important information that the system administrator should have attention to, for example, system errors/warnings, the system health conditions and real-time activities of the system. With this information, system administrator can quickly identify the potential issues that might pose threat to the CBS system and therefore can react accordingly to fix the issues. Below is a summary of the information that the dashboard section provides.

To Dos

It contains system announcement, errors and warning such as “**Missed Backups**”, “**Failed Backups**”, “**System Errors**”, “**Replication Errors**”, “**API Errors**” and “**Email Errors**”.

Administrator or operators can base on these messages to take corresponding actions.

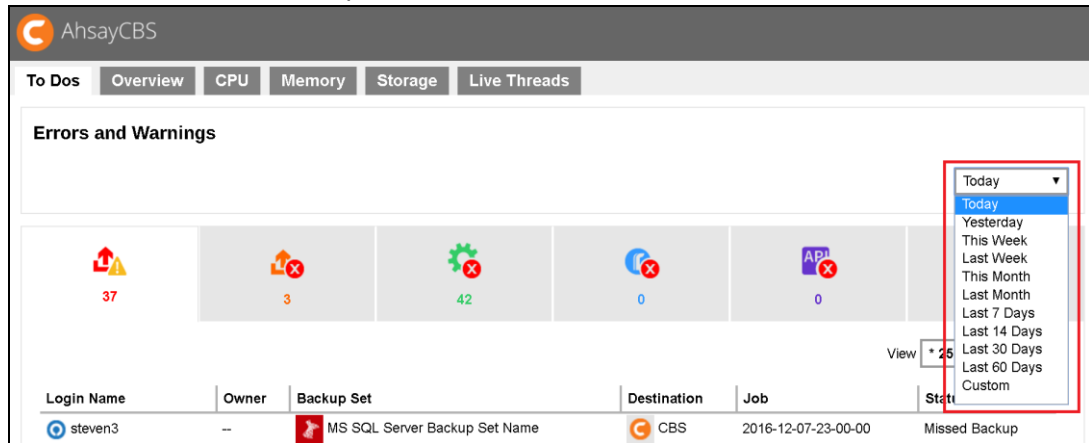
The screenshot shows the AhsayCBS dashboard with the 'To Dos' tab selected. It displays a summary of errors and warnings, including Missed Backups (16), Failed Backups (2), System Errors (63), Replication Errors (0), API Errors (0), and Email Errors (0). Below this is a table of backup jobs.

Login Name	Owner	Backup Set	Destination	Job	Status
nas	--	b1	CBS	2016-12-07-17-00-00	Missed Backup
miniwin	--	File Backup	CBS	2016-12-07-13-00-00	Missed Backup
acbwln	--	File Backup	CBS	2016-12-07-13-00-00	Missed Backup
stever4	--	Hyper V Testing 05	Local-1	2016-12-07-12-08-00	Missed Backup
11	--	MySQL Database	CBS	2016-12-07-12-07-00	Missed Backup

Viewing options

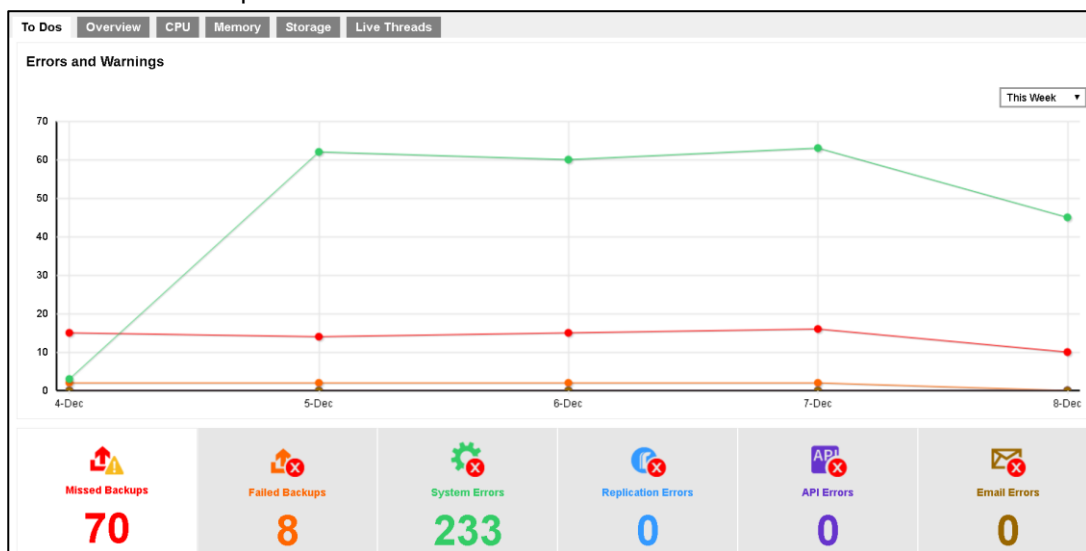
Selectable Logs Period

You can select to display the log entries of the errors and warnings from a period of time you selected. Click the drop-down menu on the right under the **Errors and Warnings** section to select the desired period of time.



Besides selecting **Today** and **Yesterday** from the above mentioned drop-down menu, you will see a chart illustrating the number of errors for different types of errors/warning within the selected period of time.

In the chart below, for example, the **vertical axis** denotes the number of errors/warnings while the **horizontal axis** denotes the date. The lines on the chart in different colors correspond to the different types of errors/warnings as shown in the number counter below the chart in their respective colors.



Selectable Number of Row per Page

You can also select the number of rows (i.e. the number of entries) to display on each page. Click on the drop-down menu as shown in the screen shot below to select the desired setting.

The screenshot shows the AhsayCBS dashboard with a table of backup jobs. A red box highlights the 'View' dropdown menu, which is open, showing options: * 25 Rows/Page, * 50 Rows/Page, * 100 Rows/Page, * 200 Rows/Page, and * 500 Rows/Page. The table has columns: Login Name, Owner, Backup Set, Destination, Job, and a partially visible Status column. The first two rows show backup jobs for 'steven3' and 'a1'.

Missed Backups

Missed Backups
1327

This page shows all details on all missed backups from all backup users using this CBS server. Missed backup refers to backup jobs that were failed to perform according to the set backup schedules. Any backup jobs failed to perform backup 6 hours after the scheduled backup time is considered as missed backup.

To Dos						
Overview CPU Memory Storage Live Threads						
View * 25 Rows/Page Page 1						
Login Name	Owner	Backup Set	Destination	Job	Status	
steven3	--	MS SQL Server Backup Set Name	CBS	2016-12-07-23-00-00	Missed Backup	
a1	--	MySQL Daily	CBS	2016-12-07-22-00-00	Missed Backup	
aaa	--	b1		2016-12-07-20-00-00	Missed Backup	

Login Name	Login name of the backup user
Owner	Ownership of the backup account
Backup Set	Name of the backup set that has missed the scheduled backup
Destination	Backup destination of the missed backup
Job	Date and time when the backup job was classified as a missed backup
Status	Status of the missed backup job

Failed Backups


Failed Backups
126

This page shows all details on all failed backups from all backup users using this CBS server. Failed backup refers to backup jobs that are not performed successfully. The backup failure could be caused by various reasons, such as storage capacity on the backup destination, Internet connection between the client backup agent and the CBS server/backup destination, user interruption during backup, etc.

To Dos						
Overview CPU Memory Storage Live Threads						
						View * 25 Rows/Page Page 1
Login Name	Owner	Backup Set	Destination	Job	Status	
ron	--	default-backup-set-name-ronnie	CBS	2016-12-07-20-00-00	Error	
mini	--	File Backup	CBS	2016-12-07-20-00-00	Warn	
ron	--	default-backup-set-name-ronnie	CBS	2016-12-06-20-00-00	Error	

Login Name	Login name of the backup user
Owner	Ownership of the backup account
Backup Set	Name of the backup set that failed to back up
Destination	Backup destination of the failed backup
Job	Date and time when the backup job failed to back up
Status	Status of the failed backup job

System Errors



This page shows all details of system errors related to backup/restore for this CBS server. System errors include, for example, fail login attempt, login authentication failed, etc.

To Dos	Overview	CPU	Memory	Storage	Live Threads
Timestamp	Login Name	Owner	Message		
12/08/2016 17:02:19	steven	--	Failed login attempt from IP address 192.168.7.105		
12/08/2016 16:52:16	steven	--	Failed login attempt from IP address 192.168.7.105		
12/08/2016 16:42:13	steven	--	Failed login attempt from IP address 192.168.7.105		

Timestamp	Date and time when the system error recorded
Login Name	Name of backup user in relation to the system error
Owner	Ownership of the backup account
Message	Message showing the system errors in details

Replication Errors

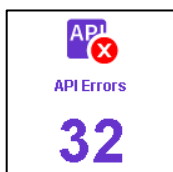


This page shows all details of replication error for this CBS server.

To Dos	Overview	CPU	Memory	Storage	Live Threads
					View *25 Rows/Page Page 1
Timestamp	Message				
12/08/2016 16:33:38	Error replaying '1457105878860\files\2016-06-14-23-30-00\retention.xml.187.158d6598cac.gz' to target destination				
12/08/2016 16:33:38	Failed to replicate 'E:\ahsay01\Telco_PC\1457105878860\Snapshots\1481152470048.313'. Error=[LocalDiskManager.getOutputStream] Fail to open 'X:\replicate\Ahsay_nortec\user\Telco_PC\1457105878860\files\2016-06-14-23-30-00\retention.xml.187.158d6598cac.gz'. Error='Fail to set file attributes: X:\replicate\Ahsay_nortec\user\Telco_PC\1457105878860\files\2016-06-14-23-30-00\retention.xml.187.158d6598cac.gz'				
12/08/2016 16:33:32	Error replaying '1464621030883\files\2016-07-01-20-00-00\retention.xml.187.158d5840493.gz' to target destination				
12/08/2016 16:33:32	Failed to replicate 'E:\ahsay01\Eidem_DC01_NY\1464621030883\Snapshots\1481137128205.107'. Error=[LocalDiskManager.getOutputStream] Fail to open 'X:\replicate\Ahsay_nortec\user\Eidem_DC01_NY\1464621030883\files\2016-07-01-20-00-00\retention.xml.187.158d5840493.gz'. Error='Fail to set file attributes: X:\replicate\Ahsay_nortec\user\Eidem_DC01_NY\1464621030883\files\2016-07-01-20-00-00\retention.xml.187.158d5840493.gz'				

Timestamp	Date and time when the replication error recorded
Message	Message showing the replication errors in details

API Errors

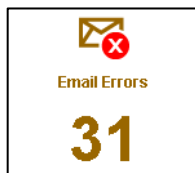


This page shows all details of API errors for this CBS server.

To Dos	Overview	CPU	Memory	Storage	Live Threads
Timestamp	Login Name	Owner	Message		
11/24/2016 17:21:39	mwong	-	<p>[Api][RunDirect]com.ahsay.obs.core.dbs.c: Incorrect backup username/password at com.ahsay.obs.api.ApiStructsAction.checkBkpUserPwd(Unknown Source) at com.ahsay.obs.api.ApiStructsAction.checkBkpUserPwd at com.ahsay.obs.api.JsonApi.execute(Unknown Source) at org.apache.struts.chain.commands.servlet.ExecuteAction.execute(ExecuteAction.java:58) at org.apache.struts.chain.commands.AbstractExecuteAction.execute(AbstractExecuteAction.java:67) at org.apache.struts.chain.commands.ActionCommandBase.execute(ActionCommandBase.java:51) at org.apache.commons.chain.impl.ChainBase.execute(ChainBase.java:191) at org.apache.commons.chain.generic.LookupCommand.execute(LookupCommand.java:305) at org.apache.commons.chain.impl.ChainBase.execute(ChainBase.java:191) at org.apache.struts.chain.ComposableRequestProcessor.process(ComposableRequestProcessor.java:283) at org.apache.struts.action.ActionServlet.process(ActionServlet.java:1913) at org.apache.struts.action.ActionServlet.doPost(ActionServlet.java:462) at javax.servlet.http.HttpServlet.service(HttpServlet.java:646) at javax.servlet.http.HttpServlet.service(HttpServlet.java:727) at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:303) at org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:208) at org.apache.tomcat.websocket.server.WsFilter.doFilter(WsFilter.java:52) at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:241) at org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:208) at com.ahsay.obs.www.EncodingFilter.doFilter(Unknown Source) at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:241) at org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:208) at org.apache.catalina.core.StandardWrapperValve.invoke(StandardWrapperValve.java:220) at org.apache.catalina.core.StandardContextValve.invoke(StandardContextValve.java:122) at org.apache.catalina.authenticator.AuthenticatorBase.invoke(AuthenticatorBase.java:504) at org.apache.catalina.valves.AccessLogValve.invoke(AccessLogValve.java:950) at org.apache.catalina.valves.ErrorReportValve.invoke(ErrorReportValve.java:103) at org.apache.catalina.core.StandardEngineValve.invoke(StandardEngineValve.java:116) at org.apache.catalina.connector.CoyoteAdapter.service(CoyoteAdapter.java:421) at org.apache.coyote.http11.AbstractHttp11Processor.process(AbstractHttp11Processor.java:1074) at org.apache.coyote.AbstractProtocol\$AbstractConnectionHandler.process(AbstractProtocol.java:611) at org.apache.tomcat.util.net.AprEndpoint\$SocketProcessor.doRun(AprEndpoint.java:2466) at org.apache.tomcat.util.net.AprEndpoint\$SocketProcessor.run(AprEndpoint.java:2465) at java.util.concurrent.ThreadPoolExecutor.runWorker(Unknown Source) at java.util.concurrent.ThreadPoolExecutor\$Worker.run(Unknown Source) at org.apache.tomcat.util.threads.TaskThread\$WrappingRunnable.run(Unknown Source) at java.lang.Thread.run(Unknown Source)</p>		

Timestamp	Date and time when the API error recorded
Login Name	Name of backup user in relation to the API error
Owner	Ownership of the backup account
Message	Message displaying the API errors in details

Email Errors



This page shows all details of email errors for this CBS server. Email errors could be caused by invalid email entered by the backup users, storage capacity of the backup user's email account, etc.

To Dos	Overview	CPU	Memory	Storage	Live Threads
Timestamp	Login Name	Owner	Message		
11/21/2016 04:03:21	steven2	--	<p>[SMTPMailer.sendHtmlWithAttach] Failed to send email to 'abc@abc.com' with subject 'Scheduled backup, steven2 > Exchange Mail Level Backup (2010) > 2016-11-20-22-00-00, was missed' java.io.IOException: [SMTPMailer.sendHtmlWithAttach] Failed to send email to 'abc@abc.com' with subject 'Scheduled backup, steven2 > Exchange Mail Level Backup (2010) > 2016-11-20-22-00-00, was missed' at com.ahsay.afc.mail.SMTPMailer.a(Unknown Source) at com.ahsay.afc.mail.SMTPMailer.a(Unknown Source) at com.ahsay.obs.core.ers.a.a(Unknown Source) at com.ahsay.obs.core.ers.a.run(Unknown Source) at java.lang.Thread.run(Unknown Source) Caused by: com.sun.mail.util.MailConnectException: Couldn't connect to host, port: smtp.gmail.com, 587; timeout -1; nested exception is: java.net.ConnectException: Connection timed out: connect at com.sun.mail.smtp.SMTPTransport.openServer(SMTPTransport.java:2053) at com.sun.mail.smtp.SMTPTransport.protocolConnect(SMTPTransport.java:697) at javax.mail.Service.connect(Service.java:386) at javax.mail.Service.connect(Service.java:245) at javax.mail.Service.connect(Service.java:194) at com.ahsay.afc.mail.SMTPMailer.a(Unknown Source) at com.ahsay.afc.mail.SMTPMailer.a(Unknown Source) at com.ahsay.afc.mail.SMTPMailer.a(Unknown Source) ... 5 more Caused by: java.net.ConnectException: Connection timed out: connect at java.net.TwoStacksPlainSocketImpl.socketConnect(Native Method) at java.net.AbstractPlainSocketImpl.doConnect(Unknown Source) at java.net.AbstractPlainSocketImpl.connectToAddress(Unknown Source) at java.net.AbstractPlainSocketImpl.connect(Unknown Source) at java.net.PlainSocketImpl.connect(Unknown Source) at java.net.SocksSocketImpl.connect(Unknown Source) at java.net.Socket.connect(Unknown Source) at java.net.Socket.connect(Unknown Source) at com.sun.mail.util.SocketFetcher.createSocket(SocketFetcher.java:312) at com.sun.mail.util.SocketFetcher.getSocket(SocketFetcher.java:236) at com.sun.mail.smtp.SMTPTransport.openServer(SMTPTransport.java:2019) ... 12 more com.sun.mail.util.MailConnectException: Couldn't connect to host, port: smtp.gmail.com, 587; timeout -1; nested exception is: java.net.ConnectException: Connection timed out: connect at com.sun.mail.smtp.SMTPTransport.openServer(SMTPTransport.java:2053) at com.sun.mail.smtp.SMTPTransport.protocolConnect(SMTPTransport.java:697) at javax.mail.Service.connect(Service.java:386) at javax.mail.Service.connect(Service.java:245) at javax.mail.Service.connect(Service.java:194) at com.ahsay.afc.mail.SMTPMailer.a(Unknown Source) at com.ahsay.afc.mail.SMTPMailer.a(Unknown Source) at com.ahsay.afc.mail.SMTPMailer.a(Unknown Source) at com.ahsay.obs.core.ers.a.a(Unknown Source) at com.ahsay.obs.core.ers.a.run(Unknown Source) at java.lang.Thread.run(Unknown Source) Caused by: java.net.ConnectException: Connection timed out: connect at java.net.TwoStacksPlainSocketImpl.socketConnect(Native Method) at java.net.AbstractPlainSocketImpl.doConnect(Unknown Source) at</p>		

Timestamp	Date and time when the Email error recorded
Login Name	Name of backup user in relation to the Email error
Owner	Ownership of the backup account
Message	Message displaying the Email errors in details

Overview

This is an overview of the system resource and system settings. These are useful information for administrator or support staff to collect machine information. This information include “Java virtual machine”, “**Java VM version**”, “**vendor of the Java**”, “**Java version**”, “**Operating System**”, “**CPU Architecture**”, “**Number of Processors**”, “**Committed Virtual Memory**”, “**Physical Memory**”, and “**Swap Space**”.

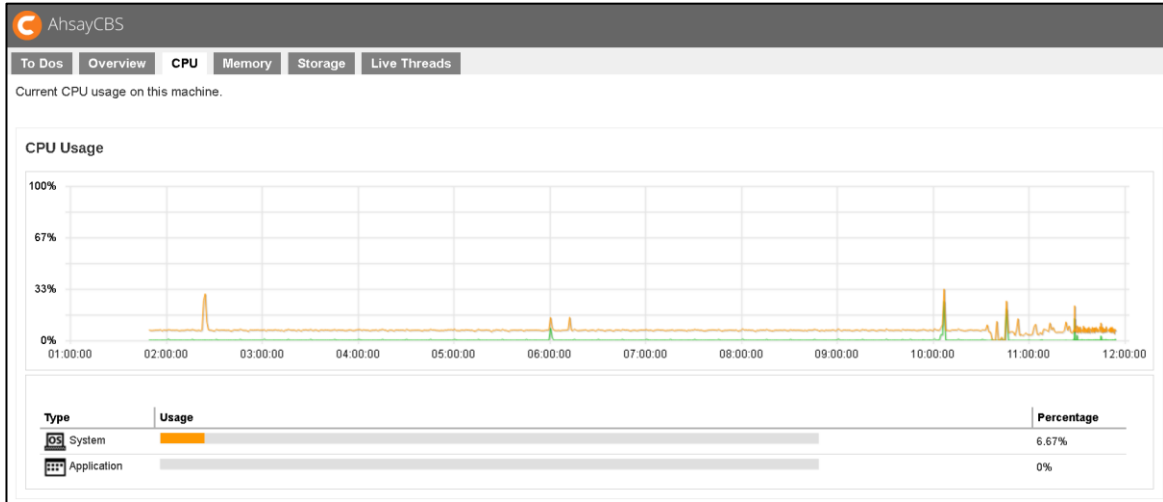
In addition, a list of system settings such as “**VM Arguments**”, “**Class Path**”, “**Library Path**”, “**Boot Class Path**” and “**System Properties**” are shown for reference.

The screenshot displays the AhsayCBS interface with the 'Overview' tab selected. It provides a status overview of all system resources and settings, organized into a grid of 10 cards. Each card features an icon, a label, and the corresponding value.

Category	Item	Value
Virtual Machine	Virtual Machine	Java HotSpot(TM) 64-Bit Server VM
	VM version	24.76-b04
	Vendor	Oracle Corporation
	Java version	1.7.0_76
	Operating System	Windows Server 2008 R2 Service Pack 1
CPU	Architecture	amd64
	Number Of Processors	4
	Committed Virtual Memory	1.58GB
	Physical Memory	1.1GB (Free) 7.99GB (Total)
	Swap Space	5.61GB (Free) 15.98GB (Total)

CPU

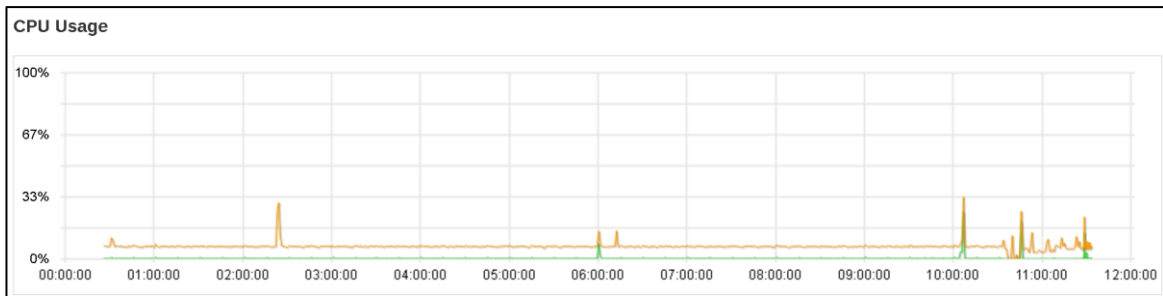
In the CPU page, you can see the current CPU utilization, the percentage that system and application occupied



There are two parts of information from this page.

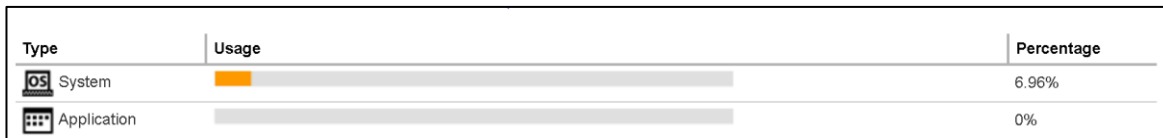
CPU Usage Chart

The CPU Usage shows the daily usage of the machine's CPU where the AhsayCBS is installed, with the vertical axis denotes and CPU utilization rate while the Y axis denotes the time.



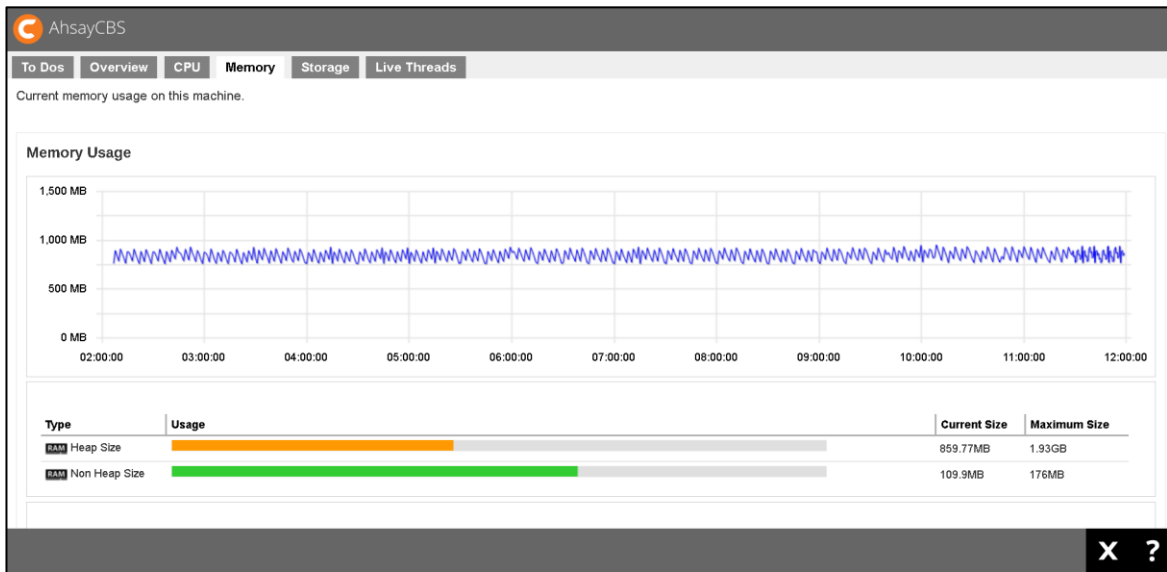
Usage Distribution

This chart shows the CPU usage distribution in percentage on System and Application.



Memory

This is a graphical view of the memory pool/managers usage on this machine.



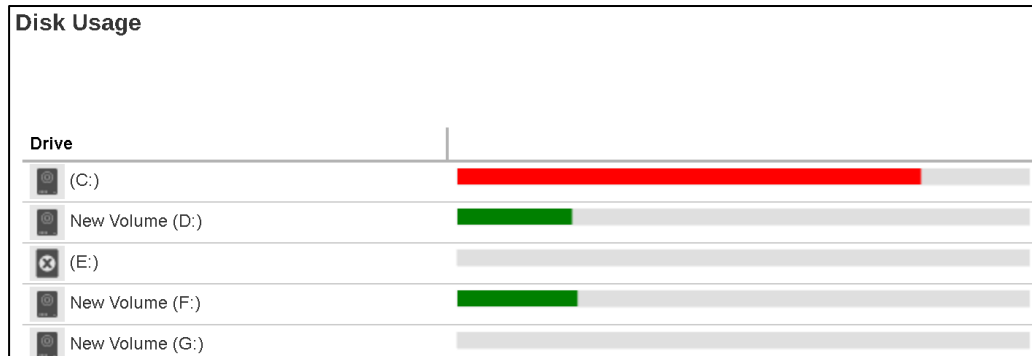
Heap memory	The heap memory is the runtime data area from which the Java VM allocates memory for all class instances and arrays.
Non-heap memory	Non-heap memory includes a method area shared among all threads and memory required for the internal processing or optimization for the Java VM.
Par Eden Space	The pool from which memory is initially allocated for most objects.
Par Survivor Space	The pool containing objects that have survived the garbage collection of the Eden space.
CMS Old Gen	The pool containing objects that have existed for some time in the survivor space.
Code Cache	The HotSpot Java VM also includes a code cache, containing memory that is used for compilation and storage of native code.
CMS Perm Gen	The pool containing all the reflective data of the virtual machine itself, such as class and method objects. With Java VMs that use class data sharing, this generation is divided into read-only and read-write areas.
Reference	Oracle JConsole documentation

Storage

This is a local storage and predefined destination usage overview.

➤ Disk Usage

Under the Disk Usage section, it shows all the drives on the machine where the AhsayCBS is installed. You can see the capacity used (**Used**) and capacity remain (**Free**) for each drive.

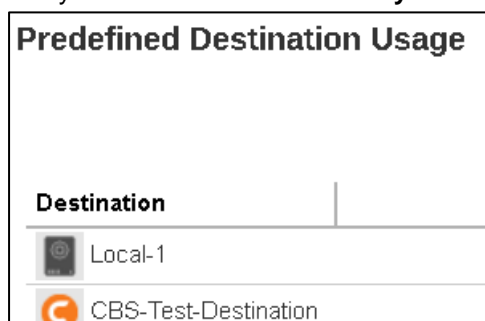


You can select to view the entries in the Disk Usage section by sorting the Drive Letter or Free Storage

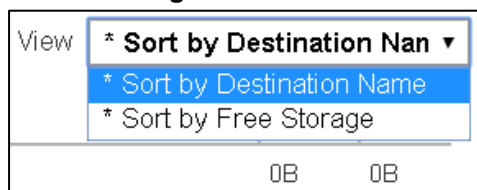


➤ Predefined Destination Usage

Under the Predefined Destination Usage section, it shows all the predefined destinations that you have added under the **System Settings > Basics > Predefined Destination**.



You can select to view the predefined destination entries by sorting the **Destination Name** or **Free Storage**.



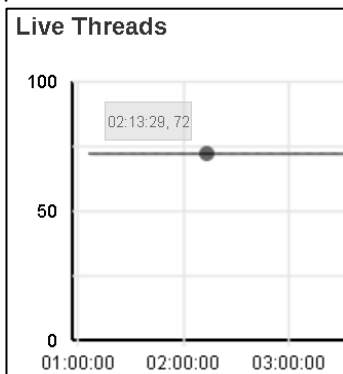
Live Threads

This page shows all live threads that are running on this machine.



Live Threads	Active process threads
Peak	The largest number of live threads record in the above period
Daemon Threads	Threads that are handled in the background
Total Threads Started	The total number of started threads

You can use mouse over at any point of the curve to obtain the number of live threads at the particular time.



If you click on the Details button below the Live Threads icon, you will see a breakdown of all live threads that are running on this machine. It is shown as thread groups for developers or administrators reference.

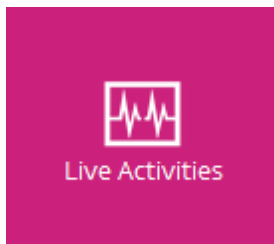
Live Threads
88

Details

Threads

- Thread group:system (8)
- Thread group:main (67)
- Thread group:WebSocketServer-ROOT (0)
- Thread group:WebSocketServer-jobs (0)
- Thread group:[AccessManager.ThreadGroup@24385a8b] (0)
- Thread group:AhsayCBS-internal (13)
- Thread group:WebSocketServer-lrps (0)
- Thread group:WebSocketServer-lrdr (0)
- Thread group:WebSocketServer-lcbs (0)

Live Activities




You can check on recent backup and restore status with the progress monitor in percentage, replication (both send and receive) and redirection status.

Backup Status

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

This section shows a list of backup job(s) that is currently running or has finished within the past 1 hour.

 AhsayCBS

Backup Status | **Restore Status** | **Replication** | **Receiver** | **Redirection**

Backup jobs that are currently running or finished within 1 hour.

Backup Status

Filter
 Client Type
 User:
 Registration Date
 User Group

Login Name (Alias)	Owner	Backup Set	Destination	Progress	Estimated Time Left	Current File	Transfer Rate
andrew (name)	--	file backup	CBS	100%	0 sec	C:\Users\Administrator\Documents\My Videos	6Kibit/s
andrew (name)	--	mybackup	CBS	100%	0 sec	C:\Users\Administrator\Favorites\desktop.ini	20Kibit/s

X ?

Restore Status

Available Restore Jobs Can Be Monitored by Live Activities					
Restore Type		AhsayOBM	AhsayACB	AhsayOBR	AhsayMOB
File	Normal Restore	✓	✓	✓	✓
	OpenDirect Restore	X	X	X	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	X	NA	X	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	X	NA	X	NA
--	--	---	----	---	----

This section shows a list of restore job(s) that is currently running or has finished within the past 1 hour.

The screenshot shows the AhsayCBS interface with the 'Restore Status' tab selected. Below the tab are filter options for Client Type, User, Registration Date, and User Group. A table lists the restore jobs. One job is shown, owned by 'a (name)', using a 'file backup' set, with progress at 0% and an estimated time left of 0 seconds. The current file being restored is 'E:\C_Users\Administrator\Documents\desktop.ini'.

Login Name (Alias)	Owner	Backup Set	Destination	Progress	Estimated Time Left	Current File	Transfer Rate
a (name)	--	file backup	CBS	0%	0 sec	E:\C_Users\Administrator\Documents\desktop.ini	0bit/s

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 restores performed directly through AhsayOBM/AhsayACB/AhsayOBR/ AhsayMOB or AhsayCBS User Web Console.

Replication

Here is the replication jobs status from the backup server to the corresponding receiver.

The screenshot shows the AhsayCBS interface with the 'Replication Status' tab selected. Below the tab are filter options for Mode and Status. A table lists the replication jobs. One job is shown, owned by 'b ()', using a 'bset' backup set, with mode 'RESYNC' and progress at 0%. The current job is 'G:\obs6\system\obstemplconf.zip'.

Login Name (Alias)	Owner	Backup Set	Mode	Status	Current Job	Start Time	Estimated Time Left
b ()	--	bset	RESYNC	0%	G:\obs6\system\obstemplconf.zip	14:46:17	

Receiver

In this menu, you will see all the replication jobs that the receiver on this server is currently running.

AhsayCBS

Backup Status
Restore Status
Replication
Receiver
Redirection

List of all replication jobs that the receiver on this server is currently receiving.

Receiver Status

Filter
Mode
Status

Receiver	Mode	Status	Current Job	Start Time	Estimated Time Left
replication	REPLAY	<div> <div></div> 18% </div>	1449727753291/blocks /2015-12-11-14-56-10 /00000001_000002.bak	15:01:37	

X
?

Redirection

You can see a list of all redirection jobs that are currently running.

AhsayCBS

Backup Status
Restore Status
Replication
Receiver
Redirection

List of all redirection jobs that are current running.

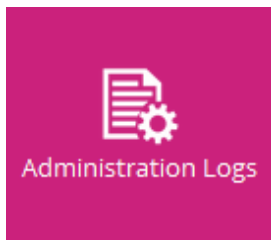
Redirection Status

Filter
User:
Type

Login Name	Host	From	Target	Type	Number
system		10.7.0.130		listBackupServers	4

X
?

Administration Logs



You can check on the SNMP logs, list of notifications/announcements/alerts, and activities log (system logs) and audit trails.

SNMP Log

You can see a list of SNMP log message in this page. You need to enable the SNMP log in **Settings -> Advanced -> Logging -> Enable SNMP Service**, and need to download the MIB definition file and pass to your SNMP machine.

Message History

This page contains a list of notifications, announcements and alerts.

AhsayCBS

SNMP Log

Message History

Activities Log

Audit Trails

List of system notifications, announcements from software vendor, and system alerts received.


Latest Notifications / Announcements / Alerts

Filter Notification

Date	Type	Notification
2015-12-07	Announcement	Ahsay Backup Software version 7.5 released
2015-12-03	Announcement	Ahsay server maintenance to prepare for new release
2015-11-25	Announcement	Pre-release of v7.5 available for testing now
2015-11-16	Announcement	Ahsay Shopping Centre updated with new version 7 pricing

Activities Log

In this page, you will see a list of activities/system logs generated by the system events, v6 migration or other user activities.

 AhsayCBS

SNMP Log Message History **Activities Log** Audit Trails

View all the system logs of this server below.


List of System Log

Filter Type View 'Today' Page 29

Timestamp	Type	Message
2015-12-11 15:29:56	RoutineJobInfo	[Logger] Starting to log system status
2015-12-11 15:29:56	RoutineJobInfo	[Logger] Start: logging system status
2015-12-11 15:29:56	RoutineJobInfo	[Logger] End: logging system status
2015-12-11 15:30:56	RoutineJobInfo	[Logger] Starting to log system status
2015-12-11 15:30:56	RoutineJobInfo	[Logger] Start: logging system status

Audit Trails

In this page, you can see the activity logs of all users on this server.

 AhsayCBS

SNMP Log Message History Activities Log **Audit Trails**

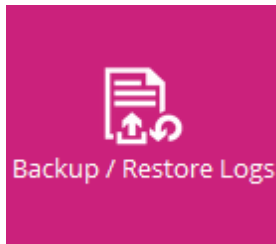
View the activity logs of all users on this server.

Audit Trails

Filter alex Type View 'Last Month' Page 133

Timestamp	Type	Message
2015-11-28 12:48:04	ReplicateFile	Replicating 'G:\obs6\useraldb\RestoreLog\2015-11-10-14-57-00.log'...
2015-11-28 12:48:04	ReplicateFile	Replicating 'G:\obs6\useraldb\StorageLog\1443756149292\2015-10.log'...
2015-11-28 12:48:04	ReplicateFile	Replicating 'G:\obs6\useraldb\StorageLog\1443773502459\2015-10.log'...
2015-11-28 12:48:04	ReplicateFile	Replicating 'G:\obs6\useraldb\StorageLog\1443774664557\2015-10.log'...

Backup / Restore Logs



You can check on a list of backup and restore jobs, backup errors, backup set logs, and activities logs.

Backup Jobs

Here is summary of the backup jobs.

AhsayCBS

Backup Jobs

Restored Jobs

Backup Errors

Backup Set Log

Activities Log

View all the backup jobs by all backup users below.

List of Backup Job

Filter

Backup Job

Job Status

User Group

View

Today

Login Name	Owner	Backup Set	Destination	Backup Job	Backup Time	End Time	Client Version	Upload Size	Job Status	Report
User1		default-backup-set-name-1 (144902735137)	CBS	2015-12-09-20-00-00	09/12 08:00 PM	09/12 08:00 PM	OBM 7.5.0.0	5.36G	OK	Down
andrew		File (1448875596743)	CBS	2015-12-09-21-00-00	09/12 09:00 PM	09/12 09:00 PM	OBM 7.5.0.0	329.67M	OK	Down
alex		119_machine (1448852396391)	CBS	2015-12-09-21-00-00			OBM	0	Missed Backup	

X

?

Restored Jobs

Here is a summary of the restored jobs.

AhsayCBS

Backup Jobs

Restored Jobs

Backup Errors

Backup Set Log

Activities Log

View all the restored files by all backup users below.

List of Restored File

Filter

User Group

View

Today

Login Name	Owner	Backup Set	Destination	Start Time	End Time	Size	IP	Status	Report
andrew		file backup (1449727753291)	CBS	11/12 02:38 PM	11/12 02:38 PM	880	10.20.7.34	OK	Download

X

?

Backup Errors

Here is a summary of the backup errors encountered by all backup users.

AhsayCBS

Backup Jobs Restored Jobs **Backup Errors** Backup Set Log Activities Log

View all the backup errors encountered by all backup users below.

List of Backup Error

Filter User Group View * Last Month

Timestamp	Login Name	Owner	Message
2015-11-09 21:05:12	terry-obm		The In-File Delta Backup feature is not enabled on this account. Please be aware that files are being backed up in their entirety in this backup job.
2015-11-09 21:05:26	terry-obm		Backup completed with warning(s)

Backup Set Log

Here is a summary of backup set logs of all the backup users.

AhsayCBS

Backup Jobs Restored Jobs Backup Errors **Backup Set Log** Activities Log

View all the backup set logs of all backup users below.

List of Backup Set Log

Filter User Group

Backup Time	End Time	Job Status	Login Name	Owner	Backup Set	Client Version	Last Successful Backup
			b	--	bset		
01/12 02:01 PM	01/12 02:02 PM	OK	a	--	system backup 2016	OBM 7.4.6.0	2015-12-01-14-01-18
01/12 02:15 PM	01/12 03:09 PM	OK	a	--	system state 2016	OBM 7.4.6.0	2015-12-01-14-15-56
01/12 03:15 PM	01/12 03:17 PM	OK	a	--	system backup e drive	OBM 7.4.6.0	2015-12-01-15-15-56

Activities Log

Here is a list of user backup/restore related system activities logs.

AhsayCBS

Backup Jobs Restored Jobs Backup Errors Backup Set Log **Activities Log**

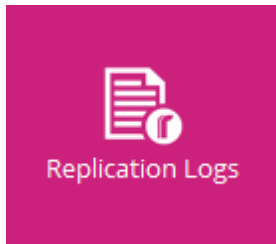
View all the system logs of this server below.

List of System Log

Filter Type User Group View * Today Page 56

Timestamp	Login Name	Owner	Type	Message
2015-12-11 15:30:54			RoutineJobInfo	[QuarterHourlyJob] Finished checking run backup.
2015-12-11 15:30:54			RoutineJobInfo	[QuarterHourlyJob] Starting trial user reminder

Replication Log



You can check on both send and receiver logs, and activities logs.

Sent to Receiver

You can see a list of sending job from the AhsayCBS to the corresponding receiver.

The screenshot shows the 'Sent to Receiver' tab in the AhsayCBS interface. It displays a table of replication jobs sent to a receiver. The table has columns for Timestamp, Type, and Message. The messages indicate the replication of specific log files.

Timestamp	Type	Message
2015-12-10 14:13:20	ReplicateFileInfo	Replicating 'G:\obs6\user\aldb\RestoreLog\2015-11-06-17-35-27.log'...
2015-12-10 14:13:20	ReplicateFileInfo	Replicating 'G:\obs6\user\aldb\RestoreLog\2015-11-06-17-40-34.log'...
2015-12-10 14:13:20	ReplicateFileInfo	Replicating 'G:\obs6\user\aldb\RestoreLog\2015-11-06-17-41-41.log'...
2015-12-10 14:13:20	ReplicateFileInfo	Replicating 'G:\obs6\user\aldb\RestoreLog\2015-11-06-17-43-38.log'...

Received from Other Backup Servers

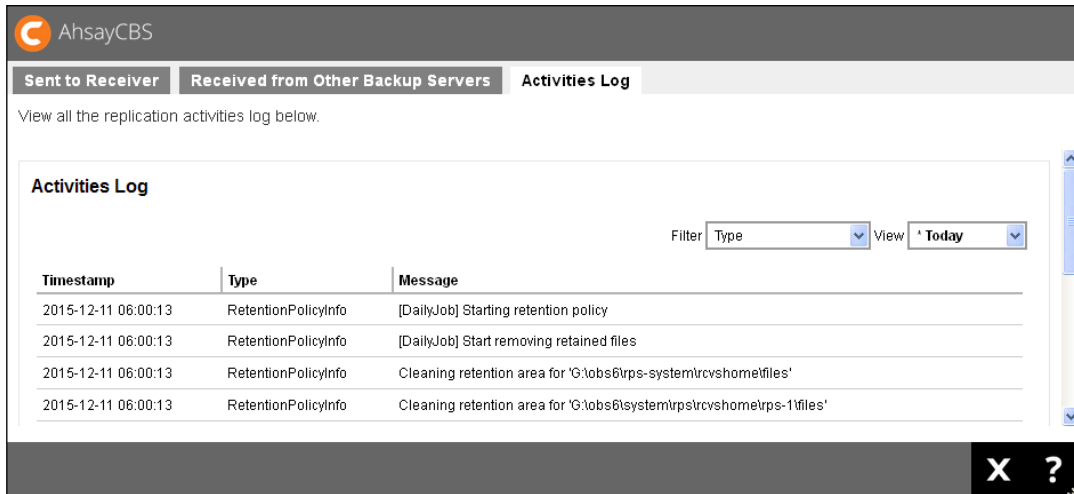
Here is the log of receiver on the AhsayCBS.

The screenshot shows the 'Received from Other Backup Servers' tab in the AhsayCBS interface. It displays a table of replication jobs received from other backup servers. The table has columns for Timestamp, Type, and Message. The messages indicate the reception of specific log files.

Timestamp	Type	Message
2015-12-11 15:07:07	ReceiveFileInfo	Receiving 'G:\obs6\user\aldb\StorageLog\1445235725972\2015-11.log'...
2015-12-11 15:07:07	ReceiveFileInfo	Receiving 'G:\obs6\user\aldb\StorageLog\1445236313228\2015-10.log'...
2015-12-11 15:07:07	ReceiveFileInfo	Receiving 'G:\obs6\user\aldb\StorageLog\1445236313228\2015-11.log'...
2015-12-11 15:07:07	ReceiveFileInfo	Receiving 'G:\obs6\user\aldb\StorageLog\1445321787577\2015-10.log'...

Activities Log

Here is the page to view all the replication activities log, such as retention policy job.



AhsayCBS

Sent to Receiver Received from Other Backup Servers **Activities Log**

View all the replication activities log below.

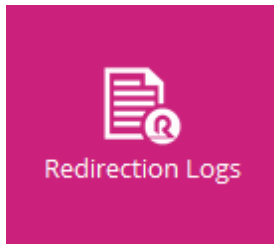
Activities Log

Filter Type View 'Today'

Timestamp	Type	Message
2015-12-11 06:00:13	RetentionPolicyInfo	[DailyJob] Starting retention policy
2015-12-11 06:00:13	RetentionPolicyInfo	[DailyJob] Start removing retained files
2015-12-11 06:00:13	RetentionPolicyInfo	Cleaning retention area for 'G:\obs6\tps-system\rcvshome\files'
2015-12-11 06:00:13	RetentionPolicyInfo	Cleaning retention area for 'G:\obs6\system\tps\rcvshome\tps-1\files'

X ?

Redirection Logs



You can check on the redirection activities logs in this menu.

The screenshot shows the AhsayCBS web interface. At the top, there's a header with the AhsayCBS logo. Below it, a tab labeled 'Activities Log' is selected. A message says 'View all the redirection activities below.' Below this is a table titled 'Activities Log'. The table has three columns: 'Timestamp', 'Type', and 'Message'. There are five rows of log entries. To the right of the table, there are filters for 'Type' (a dropdown menu), 'View' (set to 'Today'), and 'Page' (set to '6'). At the bottom right of the interface, there are icons for 'X' and '?'.

Timestamp	Type	Message
2015-12-10 14:00:21	RoutineJobInfo	[HourlyJob]Starting license check
2015-12-10 14:00:21	RoutineJobInfo	[HourlyJob]Start: License check
2015-12-10 14:00:21	RoutineJobInfo	[HourlyJob]End: License check
2015-12-10 14:00:28	V6LocateOBSRInfo	[obc.LocateObsr] Login name = 'User1' does not exist. IP = '192.168.6.115'
2015-12-10 14:03:28	LocateBackupServerInfo	[LocateBackupServer] Login name = 'andrewtest2' does not exist. IP = '192.168.8.105'

Enable Third Party Monitoring Tools

You can set up third party monitoring tools such as SNMP and Windows Event Log (Windows only) in **System Settings -> Advanced -> Logging**.

The screenshot shows the AhsayCBS web interface for the 'Logging' section. At the top, there's a header with the AhsayCBS logo and a navigation bar with tabs: 'Auto Save', 'Proxy', 'Logging' (selected), 'File Explorer', and 'Runtime Options'. Below the tabs, a message says 'You can publish system and error messages of this server to third parties' monitoring tools through SNMP. If your monitoring tool supports SNMP, simply enable the SNMP feature below.' Below this message are three sections: 'Download MIB Files' with a 'Download' button, 'Enable SNMP Service' with a toggle switch, and 'Windows Event Log' with a checkbox 'Use Windows Event Log' and a text input field for 'Event Log Name'. At the bottom right of the interface, there are icons for 'Save', 'X', and '?'.

10 Branding the AhsayCBS

This chapter describes the steps to brand the AhsayCBS/AhsayUBS.

Since version 7.7, you can brand the AhsayCBS and generate new AhsayCBS installers and AhsayUBS image files from the AhsayCBS interface.

Prerequisite

A Rebranding license is required for this feature to work. Evaluation license does not support this feature. If you do not have a license yet, visit the [Ahsay Shopping Centre – Rebranding](#) page to purchase one.

Before Getting Started

Here are the suggested steps for you to complete the process.

1. Prepare the logos, properties, application settings and digital signature to be applied in the **Rebrand Clients** section, which will be reflected in the Client Backup Agents (AhsayACB/AhsayOBM).
2. Generate the AhsayOBM/AhsayACB installers for testing.
3. Prepare the logos, properties, cascade style sheet, connector/SSL certificate settings and customized report templates to be applied in the **Rebrand Web Console** section, which will be reflected in the AhsayCBS web console.
4. Generate the AhsayCBS installer for testing.
5. **Optional:** AhsayUBS image file generation. Select either 'ISO' or 'IMG' as the format for image file generation. The image file will be the installation file for the AhsayUBS.

AhsayUp Upgrade Service and AhsayUp+ Upgrade Service

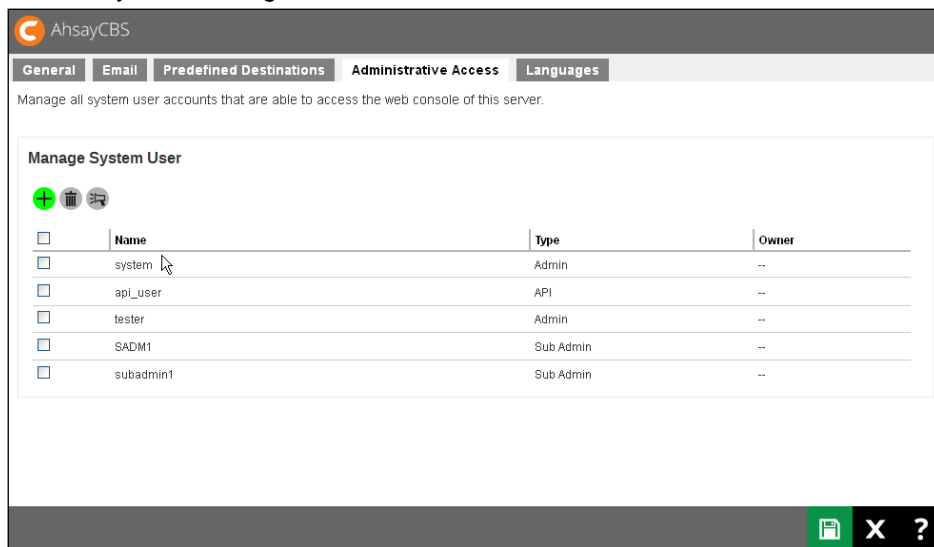
Subscribe our premium upgrade service to enjoy a smooth and effortless upgrade experience. Click [here](#) to learn more about the differences between the AhsayUp Upgrade Service and AhsayUp+ Upgrade Service, or visit the [Ahsay Shopping Centre](#) directly to subscribe the service.

For the images specifications, please refer to the [Appendix F](#).

Prepare Branding for AhsayCBS Interface

After you have installed the AhsayCBS, you can upload the graphics and customize the properties.

1. Login to the AhsayCBS management console as “**system**” user.
2. Click in System Settings -> Basic -> Administrative Access.



3. Click on the “**system**” user to brand the AhsayCBS.

If you are testing this feature, please create a sub admin user and test the following steps, this is because when new installers are generated, the existing installers will be overwritten with the new ones.

4. Click on the **Rebrand Web Console** section on the left.



5. Enter the following fields under the **User Interface** tab.
6. **Title** – The name to be displayed on the title bar of the browser.
7. **Product Name** – The name to be displayed in the software license page.
8. **Download link for iOS app** – The URL link directs users to iOS App Store to download AhsayMOB.

9. **Download link for Android app** – The URL directs users to Android Google Play to download AhsayMOB.

Note

Although it is possible to define the URLs to download the AhsayMOB application from iOS and Android platforms, please note that AhsayMOB is not brandable.

10. Upload the branding image for the AhsayCBS interface. Please refer to the branding image specifications listed on [Appendix F](#), you can download the default logo/icon for reference.
11. At the bottom of this page, you can upload the Cascade Style Sheet (CSS) for the AhsayCBS interface.
12. Click on the **Connector** tab if you need to change the connector settings and SSL settings. These settings will be applied to your new installers.

<input type="checkbox"/>	IP	Port	Protocol	Max Connection	Connection Timeout	Max Keep Alive Request	SSL Certificate
<input type="checkbox"/>	0.0.0.0	80	HTTP	2000	120000	1000	--
<input type="checkbox"/>	0.0.0.0	443	HTTPS	2000	120000	1000	--

<input type="checkbox"/>	Name	Common Name	Organization Unit	Organization Name	Location	State	Country	Expiry Date	Status
--------------------------	------	-------------	-------------------	-------------------	----------	-------	---------	-------------	--------

If you will generate the AhsayUBS installer, please reserve the port 8080 for the AhsayUBS web admin interface.

13. Click on the **Predefined Destinations** tab if you need to customize the application name for standard destinations or the credentials for Cloud storage. Please refer to the [Customize Application Name on Cloud Storages](#) for instruction.

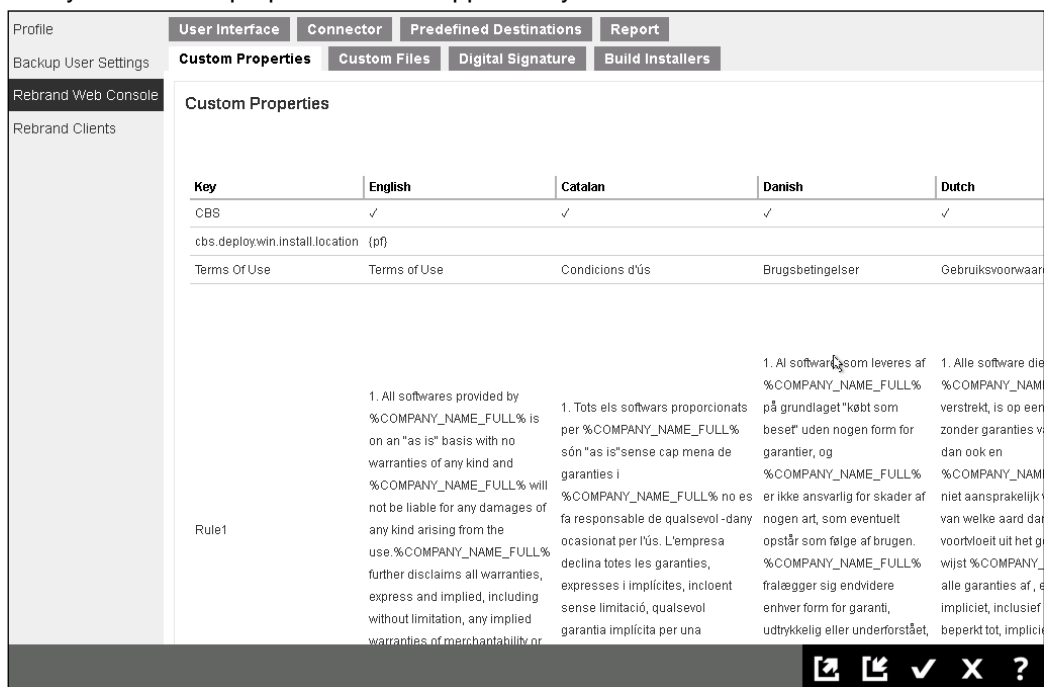
Note: OpenStack, Dropbox, Local, AhsayCBS, Destination Pool and OneDrive destinations cannot be customized.

The screenshot shows the 'Predefined Destinations' tab selected in the top navigation bar. The left sidebar contains 'Profile', 'Backup User Settings', 'Rebrand Web Console', and 'Rebrand Clients'. The main content area has a sub-tab bar with 'Custom Properties', 'Custom Files', 'Digital Signature', and 'Build Installers'. Under 'Custom Properties', there are six rows, each with a label and a text input field: 'Customize application name', 'Customize credentials for OneDrive', 'Customize credentials for OneDrive for Business', 'Customize credentials for Google Drive', 'Customize credentials for Dropbox', and 'Customize credentials for Amazon Cloud Drive'. Each input field has a small black icon on the right. At the bottom right of the main area is a toolbar with icons for save, copy, check, close, and help.

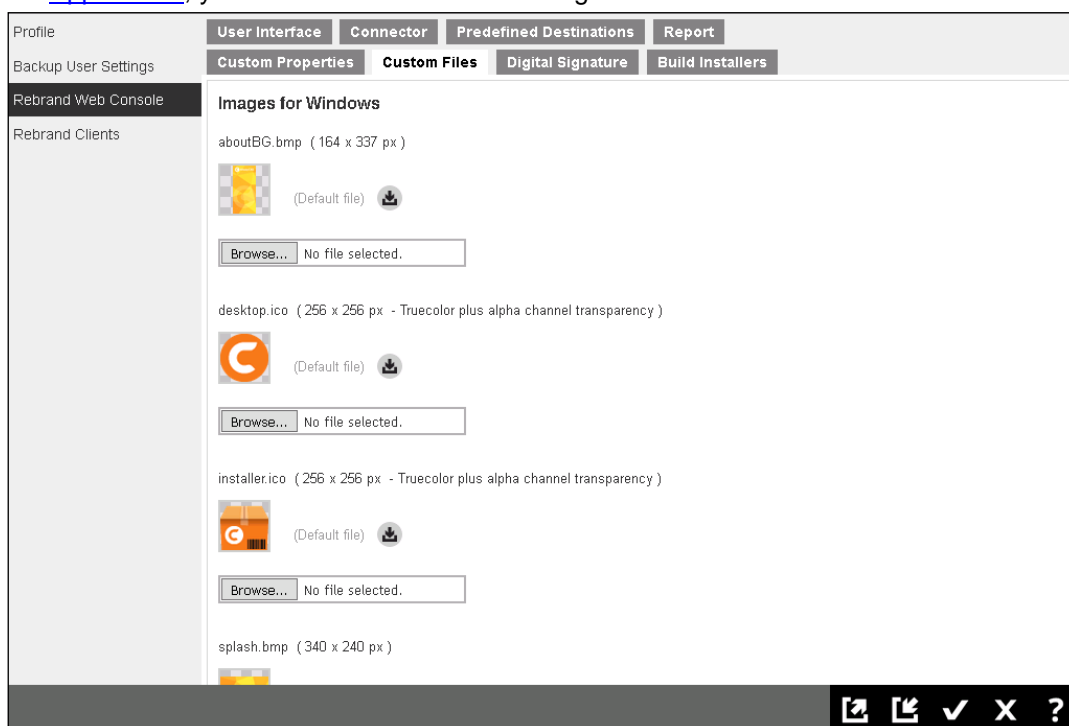
14. Click on the **Report** tab if you want to modify the HTML template. These templates will be applied to your new installers.

The screenshot shows the 'Report' tab selected in the top navigation bar. The left sidebar is the same as in the previous screenshot. The main content area has a sub-tab bar with 'Custom Properties', 'Custom Files', 'Digital Signature', and 'Build Installers'. Under 'Custom Properties', there is a 'Report' section. It lists three templates: 'Active Directory authentication failure report (ad_authentication_failure.html)', 'Backup quota alert (backup_quota_alert.html)', and 'Backup quota reminder (backup_quota_reminder.html)'. Each template has a 'No preview' icon, a '(Default file)' label, a download icon, and a 'Browse...' button followed by the text 'No file selected.' At the bottom right of the main area is a toolbar with icons for save, copy, check, close, and help.

15. Click into the **Custom Properties** tab if you want to modify the properties on the AhsayCBS. These properties will be applied to your new installers.



16. Click into the **Custom Files** tab. Upload the branding image for the AhsayCBS installer/AhsayUBS image file. Please refer to the branding image specifications listed on the [Appendix F](#), you can download the default logo/icon for reference.



17. If you have uploaded the digital signature in **Rebrand Clients > Digital Signature**, it will be applied to your new Windows installer.

Profile	User Interface	Connector	Predefined Destinations	Report
Backup User Settings	Custom Properties	Custom Files	Digital Signature	Build Installers
Rebrand Web Console	Digital Signature			
Rebrand Clients	Please refer to [Rebrand Clients] > [Digital Signature]			

18. Click on the **Build Installer** tab.

Note: The new AhsayOBM/AhsayACB will be generated and overwrite your existing installers.

19. Select the installer(s) or image file(s) to generate. You can also select the AhsayUBS image file generation. Before you use this option, you may test the AhsayCBS installer generation first, this can save the generation time and download time before you can finalize your branding work.


Profile	User Interface	Connector	Predefined Destinations	Report
Backup User Settings	Custom Properties	Custom Files	Digital Signature	Build Installers
Rebrand Web Console	Building Targets			
Rebrand Clients	<input checked="" type="checkbox"/> Windows (cbs-win.exe) <input checked="" type="checkbox"/> Unix (cbs-nix.tar.gz) <input type="checkbox"/> ISO (cbs-ubs.iso) <input type="checkbox"/> IMG (cbs-ubs.img)			

20. If you wish to rebrand the AhsayCBS to resellers using your own branding and to prevent resellers from knowing the software is from Ahsay and changing the branding, you can check the **Disable branding feature on customized web management console** checkbox. With this feature enabled, the **Rebrand Web Console** and **Rebrand Clients** sections in the web management console of the CBS installer to be generated will be disabled. In that case, backup users will not see any Rebrand parameters with Ahsay wording.

Rebrand Control
<input type="checkbox"/> Disable branding feature on customized web management console

21. Click  and  to save all the settings before generating the installer.

22. Go back to the **Build Installers** tab, click on the **Build Branded Server** button to generate new AhsayCBS installer or AhsayUBS image file.

 Important! If you have changed the rebranding settings, please save them first before pressing this button. (Last update time : --)
Build Branded Server

Please be patient, the installer generation process should take around 10 to 15 minutes for each installer/image. The generation time would depend on the traffic condition on the customization portal.

23. You can download branded AhsayCBS installer from the download page.
24. In case there are any problems when building the installer, you will be able to see the logs by clicking on the **Download Log** button.

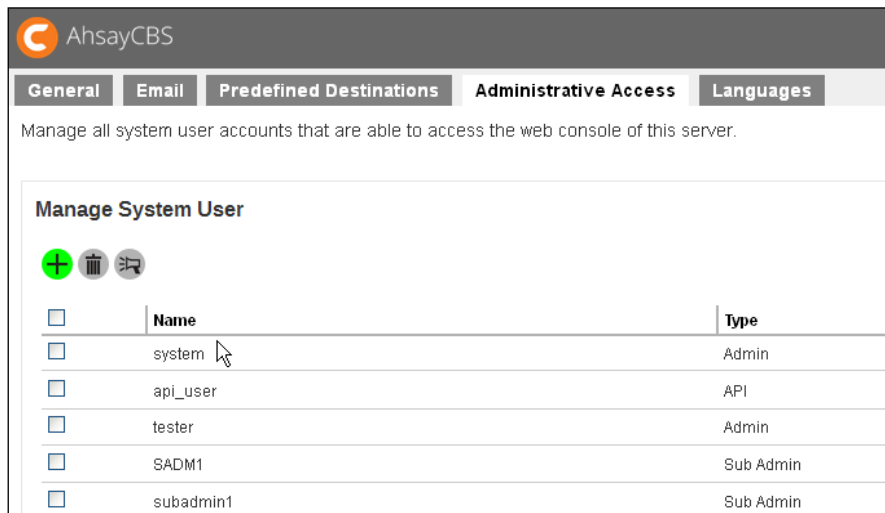


By clicking on the **Download Log** button, you can download the branding log file “**cbs-log.zip**” and you can take a look into the log for troubleshooting the branding issue.

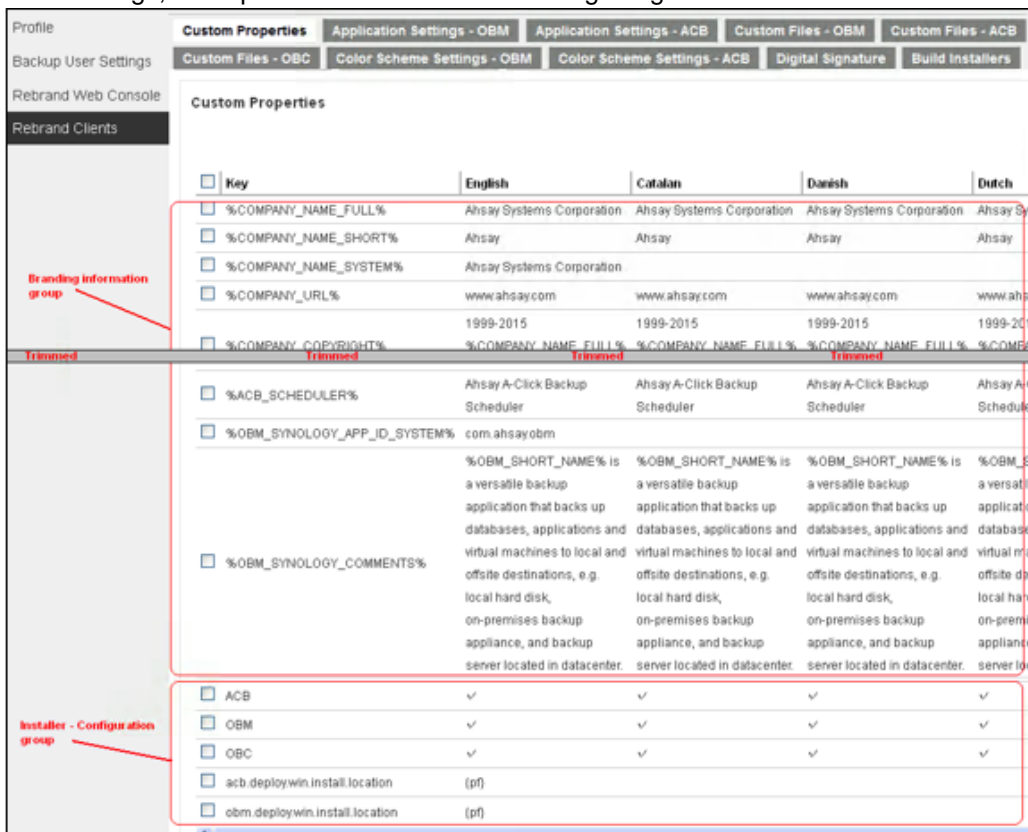
Prepare Branding for AhsayOBM/AhsayACB

Follow the steps below to brand the AhsayOBM/AhsayACB.

1. Login to the AhsayCBS management console with “system” account.
2. Click in System Settings -> Basic -> Administrative Access.



3. Click on the “**system**” user to brand the client. If you are testing this feature, please create a sub admin user and test the following steps, this is because when new installers are generated, the existing installers will be overwritten with the new ones.
4. Click on the **Branding Clients** where you can customize the properties, apply the OBM, ACB settings, and upload OBM and ACB branding images.



5. First, click on the **Custom Properties** tab.

Profile

Backup User Settings

Rebrand Web Console

Rebrand Clients

Custom Properties

Application Settings - OBM

Application Settings - ACB

Custom Files - OBM

Custom Files - ACB

Color Scheme Settings - OBM

Color Scheme Settings - ACB

Digital Signature

Build Installers

Custom Properties

Key	English	Catalan	Danish
%THIS_YEAR%	2017	2017	2017
%COMPANY_NAME_FULL%	Ahsay Systems Corporation	Ahsay Systems Corporation	Ahsay Systems Corporation
%COMPANY_NAME_SHORT%	Ahsay	Ahsay	Ahsay
%COMPANY_NAME_SYSTEM%	Ahsay Systems Corporation		
%COMPANY_URL%	www.ahsay.com	www.ahsay.com	www.ahsay.com
%COMPANY_COPYRIGHT%	1999-%THIS_YEAR% (C) % COMPANY_NAME_SYSTEM% All rights reserved.	1999-%THIS_YEAR% (C) % COMPANY_NAME_SYSTEM% All rights reserved.	1999-%THIS_YEAR% (C) % COMPANY_NAME_SYSTEM% rights reserved.
%SUPPORT_EMAIL%	support-kb@ahsay.com	support-kb@ahsay.com	support-kb@ahsay.com
%SUPPORT_URL%	http://kb.ahsay.com	http://kb.ahsay.com	http://kb.ahsay.com
%SUPPORT_TEL%			
%SUPPORT_TEAM%	Ahsay Support Team	Ahsay Support Team	Ahsay Support Team
%UPDATES_URL%	http://forum.ahsay.com/viewforum.php? f=1	http://forum.ahsay.com/viewforum.php? f=1	http://forum.ahsay.com/viewforum f=1
%OBS_FULL_NAME%	Ahsay Offsite Backup Server	Ahsay Offsite Backup Server	Ahsay Offsite Backup Server
%OBS_FULL_NAME_SYSTEM%	Ahsay Offsite Backup Server		
%OBS_SHORT_NAME%	AhsayOBS	AhsayOBS	AhsayOBS
%OBS_SHORT_NAME_SYSTEM%	AhsayOBS		
%RPS_FULL_NAME%	Ahsay Replication Server	Ahsay Replication Server	Ahsay Replication Server
%RPS_FULL_NAME_SYSTEM%	Ahsay Replication Server		
%RPS_SHORT_NAME%	AhsayRPS	AhsayRPS	AhsayRPS
%RPS_SHORT_NAME_SYSTEM%	AhsayRPS		

- i. There are three categories of branding properties on this page, they are “**Branding information**”, “**Installer – Configuration**” and “**Installer - Terms of Use**”. By default, you will be able to branding properties of all categories, you can also select the desired category by using the filter on the right hand side of the page.

Filter

Group

Group
Branding Information
Installer - Configuration
Installer - Terms Of Use

ese (Br
nian

systems Corporation
Ahsay Systems Corporation

Ahsay

- ii. You can also filter the language displayed on this page by using the **Region** drop-down menu.

Filter

Group


Region
Region
Western Europe
Northern Europe
Eastern Europe
Middle East
America
Asia Pacific

ed)
Chinese (Trad

2016

orporation
Ahsay Systems

Ahsay

- iii. By clicking into each item, you can modify the name of each property in different languages. Click on  at the bottom right corner to continue.

Branding information

Customize the information

Branding information




Key

English

Catalan






Danish

Dutch

- iv. You will be able to see the modified branding properties as shown.

Profile	Custom Properties	Application Settings - OBM	Application Settings - ACB	Custom Files - OBM	Custom Files - ACB
Backup User Settings	Custom Files - OBC	Color Scheme Settings - OBM	Color Scheme Settings - ACB	Digital Signature	Build Installers
Rebrand Web Console	Custom Properties				
Rebrand Clients					
	<input type="checkbox"/> Key	English	Catalan	Danish	Dutch
	<input type="checkbox"/> %COMPANY_NAME_FULL%	My Company	My Company	My Company	My Company
	<input type="checkbox"/> %COMPANY_NAME_SHORT%	My Company	My Company	My Company	My Company
	<input type="checkbox"/> %COMPANY_NAME_SYSTEM%	My Company			
	<input type="checkbox"/> %COMPANY_URL%	www.mycompany.com	www.mycompany.com	www.mycompany.com	www.mycompany.com
	<input type="checkbox"/> %COMPANY_COPYRIGHT%	1999-2015	1999-2015	1999-2015	1999-2015
	<input type="checkbox"/> %COMPANY_COPYRIGHT%	%COMPANY_NAME_FULL%	%COMPANY_NAME_FULL%	%COMPANY_NAME_FULL%	%COMPANY_NAME_FULL%
	<input type="checkbox"/> %COMPANY_COPYRIGHT%	All rights reserved.	All rights reserved.	All rights reserved.	All rights reserved.
	<input type="checkbox"/> %SUPPORT_EMAIL%	support@mycompany.com	support@mycompany.com	support@mycompany.com	support@mycompany.com
	<input type="checkbox"/> %SUPPORT_URL%	http://support.mycompany.com	http://support.mycompany.com	http://support.mycompany.com	http://support.mycompany.com

Note

There are some constraints for the system properties, which are defined as follow:

Short System Property (%XXX_SHORT_NAME_SYSTEM%)

- Accepts alphabet and/or numeric character(s)

General System Property (%XXX_SYSTEM%, except for Short System Property, %OBM_SYNOLOGY_APP_ID_SYSTEM% and %SOCIAL_MEDIA_LINK_XXX_SYSTEM%)

- Only accept alphabet, numeric and/or space character(s)

%OBM_SYNOLOGY_APP_ID_SYSTEM%

- Accepts alphabet, numeric and/or dot character(s)
- The length cannot exceed 128 characters

Install Location Properties (i.e. acb.deploy.win.install.location and obm.deploy.win.install.location)

- Cannot be empty

In order to meet the above constraints, some default values of system properties are modified:

%ACB_FULL_NAME_SYSTEM%

- From “Ahsay A-Click Backup” to “Ahsay AClick Backup”

%OBSR_SHORT_NAME_SYSTEM%

- From “AhsayOBS and AhsayRPS” to “AhsayOBSR”

%ACB_COMMENTS_SYSTEM%

- From “Ahsay A-Click Backup” to “Ahsay AClick Backup”

The built installer will be incorrect if the above requirements are not met.

6. After you completed properties, you can click into the **Application Settings – OBM** tab.

The screenshot displays the 'Application Settings - OBM' tab in the Ahsay Backup Manager. The left sidebar shows 'Rebrand Clients' as the active section. The main content area is titled 'Backup Server Setting' and includes the following fields:

- Backup Server**: A text input field.
- Backup Protocol**: Radio buttons for ☒ http and ☐ https.
- Backup Port**: Radio buttons for ☒ 80, ☐ 443, and ☐ Others (with an adjacent text input field).
- Language**: A section titled 'Support Languages' with checkboxes for Arabic, Catalan, Czech, Danish, German, and Greek Modern.

The bottom right corner of the window contains a toolbar with icons for save, refresh, confirm, cancel, and help.

You can customize the default connection settings, supported languages, and GUI features such as show backup server URL or select language drop down list.

7. Click into the **Application Settings – ACB** tab.

The screenshot shows the 'Application Settings - ACB' tab selected in the top navigation bar. The left sidebar contains 'Profile', 'Backup User Settings', 'Rebrand Web Console', and 'Rebrand Clients'. The main content area is titled 'Backup Server Setting' and includes a 'Backup Server' text input field, a 'Backup Protocol' section with radio buttons for 'http' (selected) and 'https', and a 'Backup Port' section with radio buttons for '80' (selected), '443', and 'Others' with an adjacent text input. Below this is a 'Language' section with a 'Support Languages' list containing checkboxes for Arabic, Catalan, Czech, Danish, German, and Greek Modern. The bottom right corner features a toolbar with icons for save, undo, redo, confirm, cancel, and help.

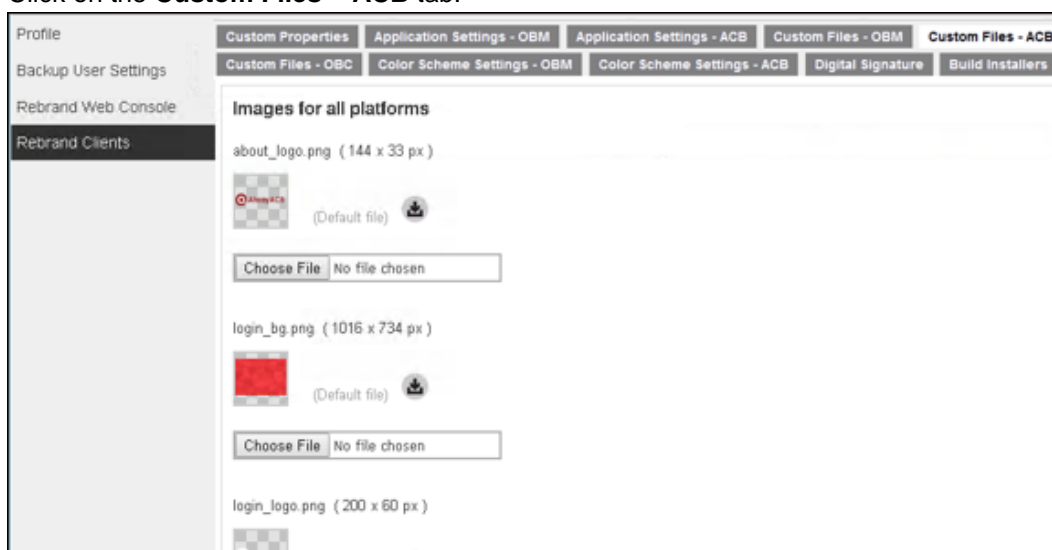
Similar to the previous step, you can customize the default connection settings, supported languages, and GUI features such as show backup server URL or select language drop down list.

8. Click on the **Custom Files – OBM** tab.

The screenshot shows the 'Custom Files - OBM' tab selected in the top navigation bar. The left sidebar is identical to the previous screenshot. The main content area is titled 'Images for all platforms' and lists three image types: 'about_logo.png (144 x 33 px)', 'login_bg.png (1024 x 1024 px)', and 'login_logo.png (200 x 60 px)'. Each entry shows a default image placeholder, a 'Browse...' button, and the text 'No file selected.'. The bottom right corner features a toolbar with icons for save, undo, redo, confirm, cancel, and help.

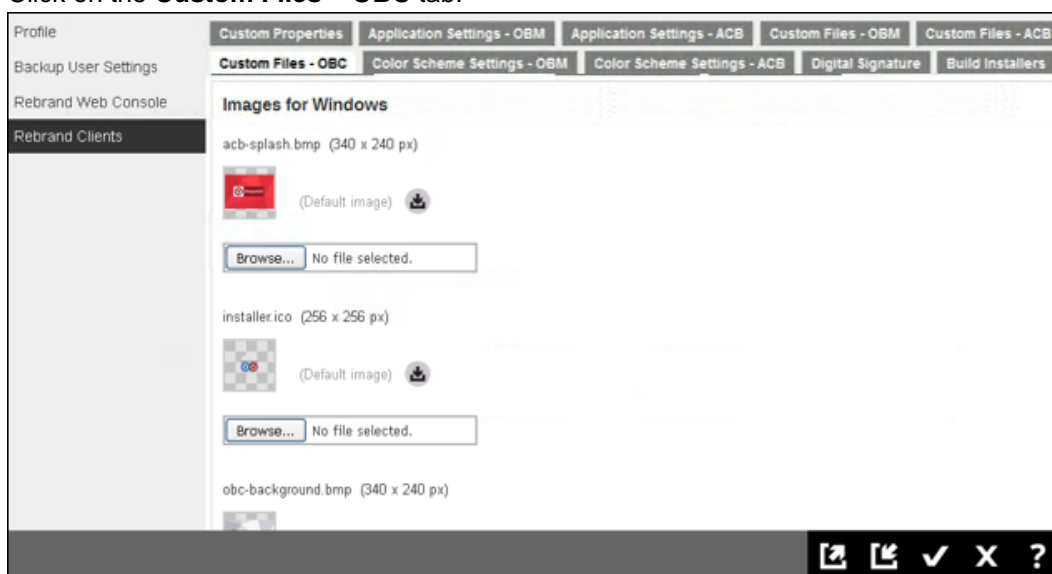
You can upload the branded images for your OBM installer/application. Please refer to the branding image specifications listed on [Appendix F](#) , you can download the default logo/icon for reference.

9. Click on the **Custom Files – ACB** tab.



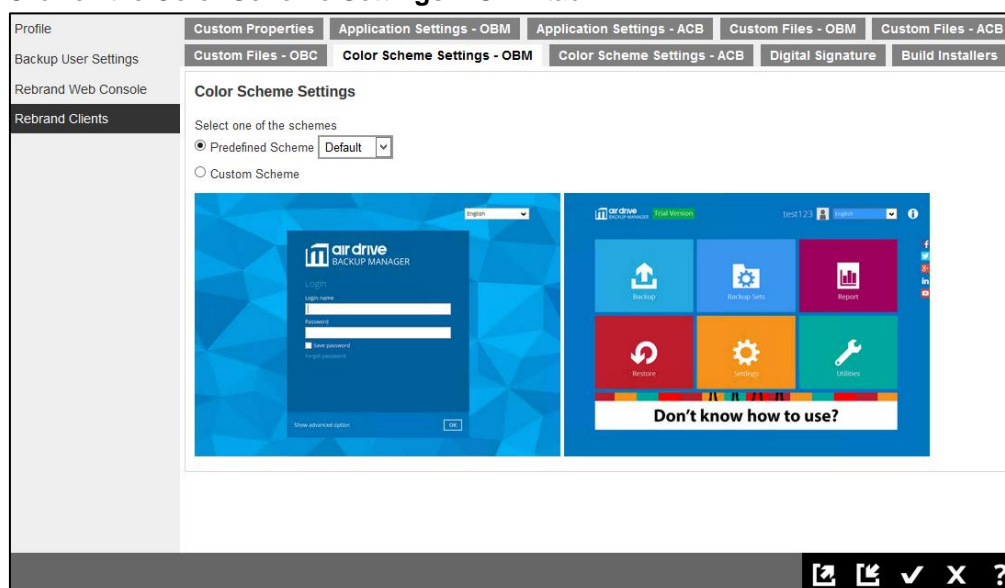
You can upload the branded images for your ACB installer/application. Please refer to the branding image specifications listed on Appendix F, you can download the default logo/icon for reference.

10. Click on the **Custom Files – OBC** tab.



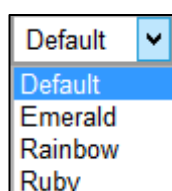
You can upload the branded images for your OBC installer. Please refer to the branding image specifications listed on Appendix F, you can download the default logo/icon for reference.

11. Click on the **Color Scheme Settings – OBM** tab.

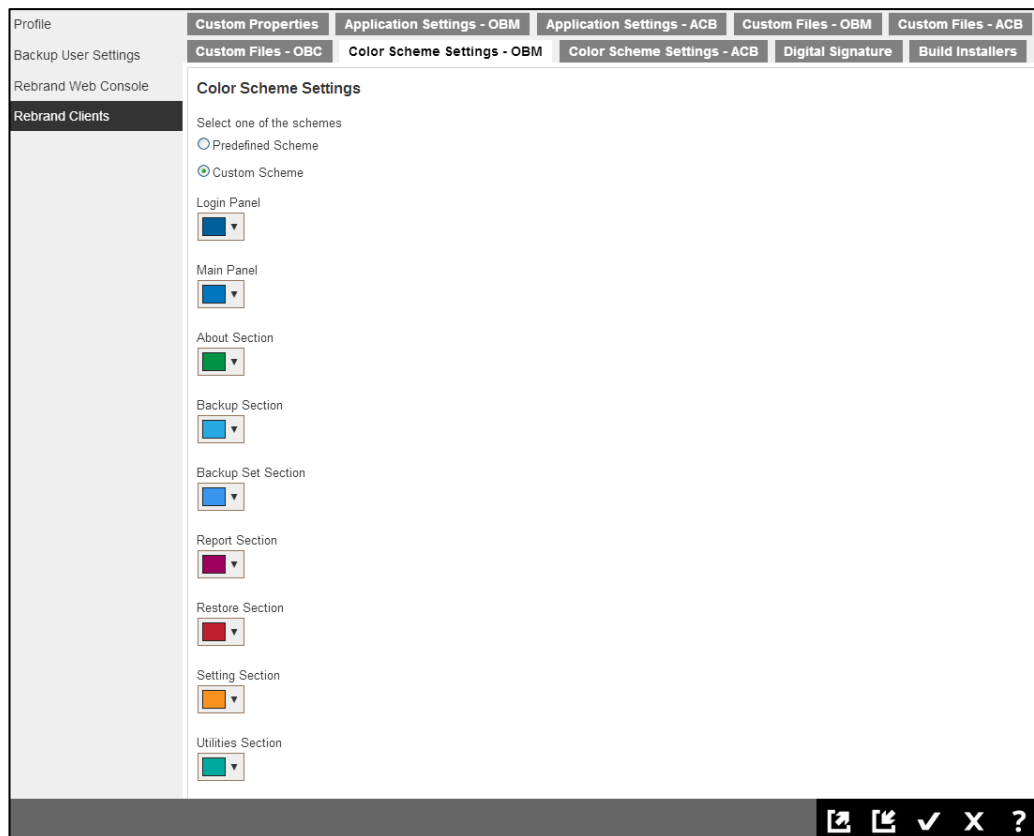


From v7.15.0.0 onwards AhsayCBS supports changing the color scheme for backup clients. You can select the color scheme settings from “Predefined Scheme” or “Custom Scheme”.

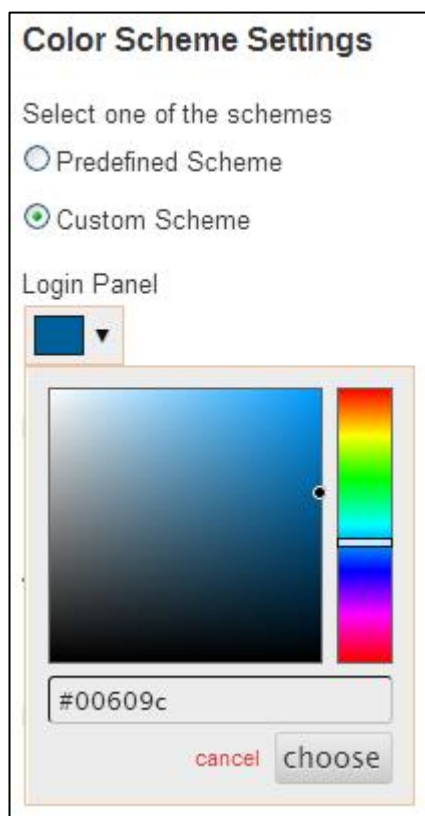
- i. For **Predefined Scheme**, you can click on the dropdown to choose from the predefined options.

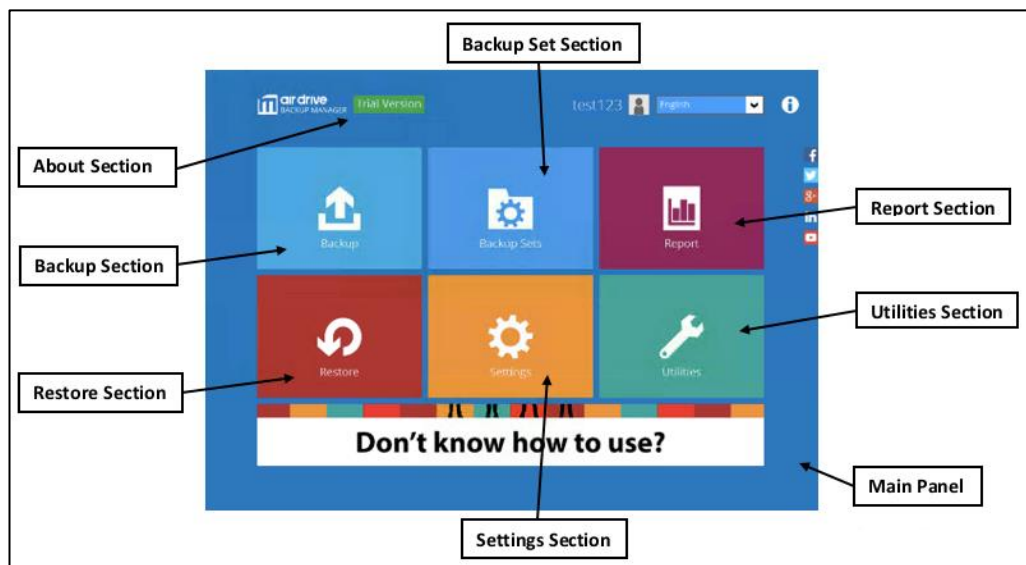
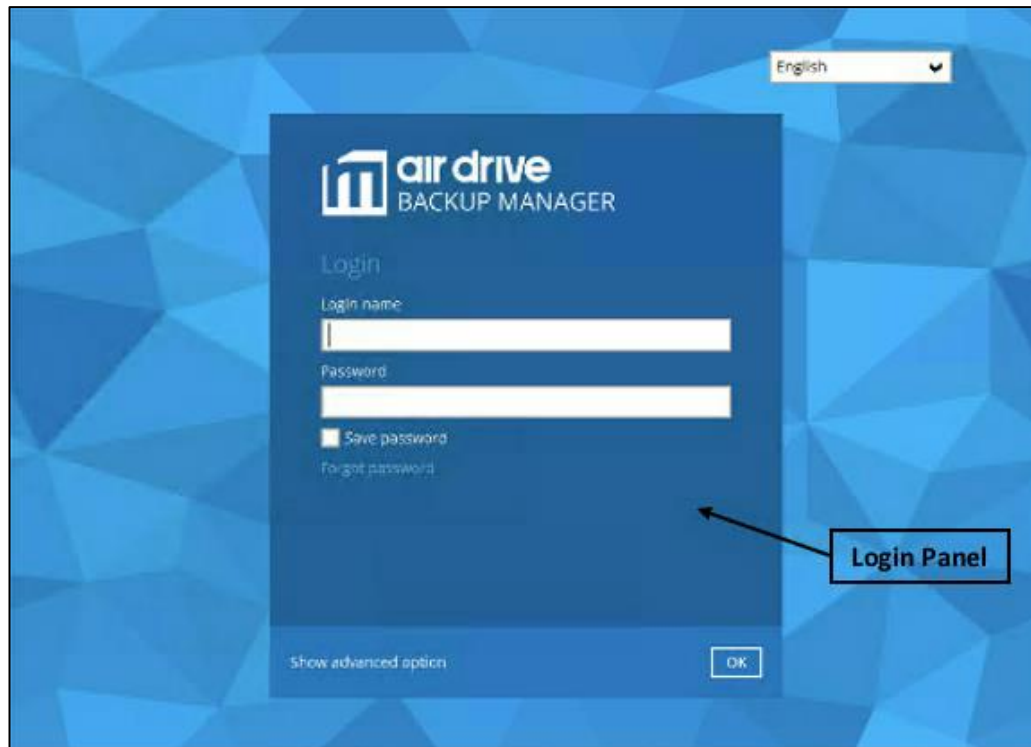



- ii. For **Custom Scheme**, you can choose color for each section.



The color setting is based on hex color codes and you can either select the color using the palette or just input the hex color code. Please refer to the following link for details of hex color code: <http://www.color-hex.com/>





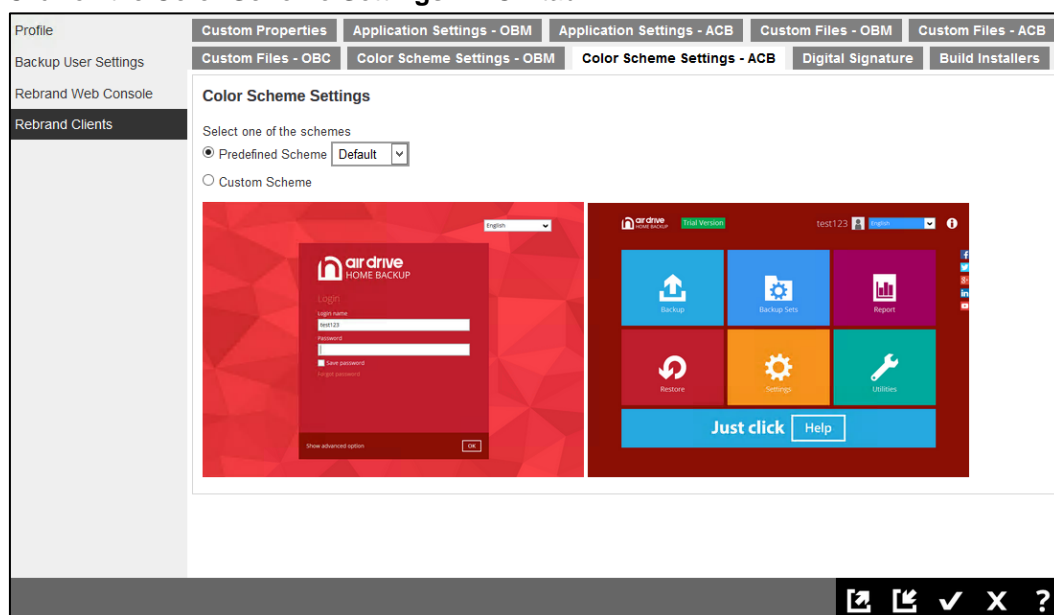
Click on  at the bottom right corner to continue.

Note

After changing and saving the configuration of **Color Scheme Settings – OBM**, administrator can provide available online/ offline installer with according color scheme for client user to download and run after finishing **[Build Installers] > [Build Branded Client]** successfully.

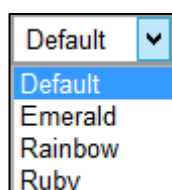
AhsayOBR will follow the same color scheme settings with AhsayOBM.

12. Click on the **Color Scheme Settings – ACB** tab.

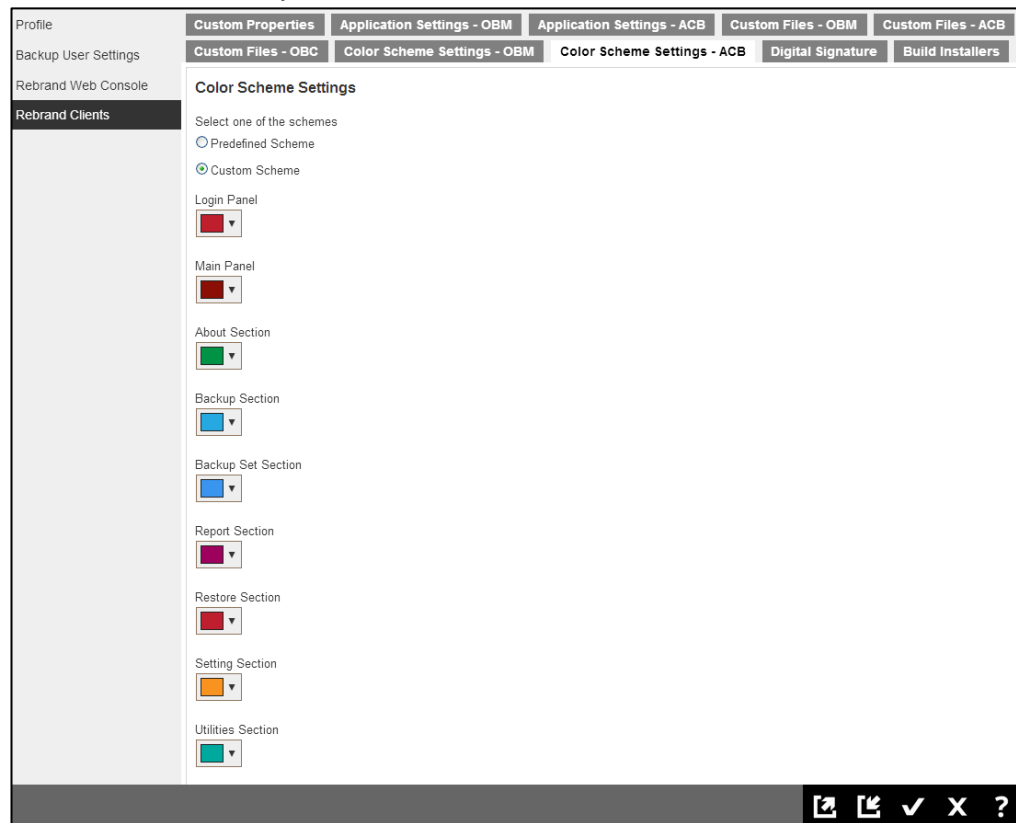


From v7.15.0.0 onwards AhsayCBS supports changing the color scheme for backup clients. You can select the color scheme settings from “Predefined Scheme” or “Custom Scheme”.

- i. For **Predefined Scheme**, you can click on the dropdown to choose from the predefined options.

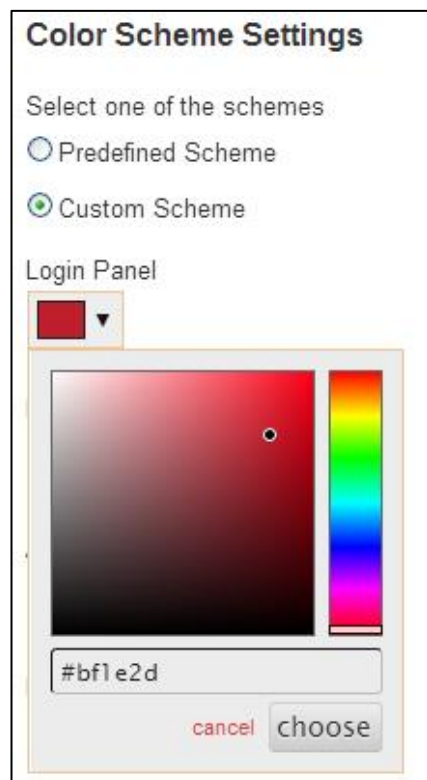


- ii. For **Custom Scheme**, you can choose color for each section.

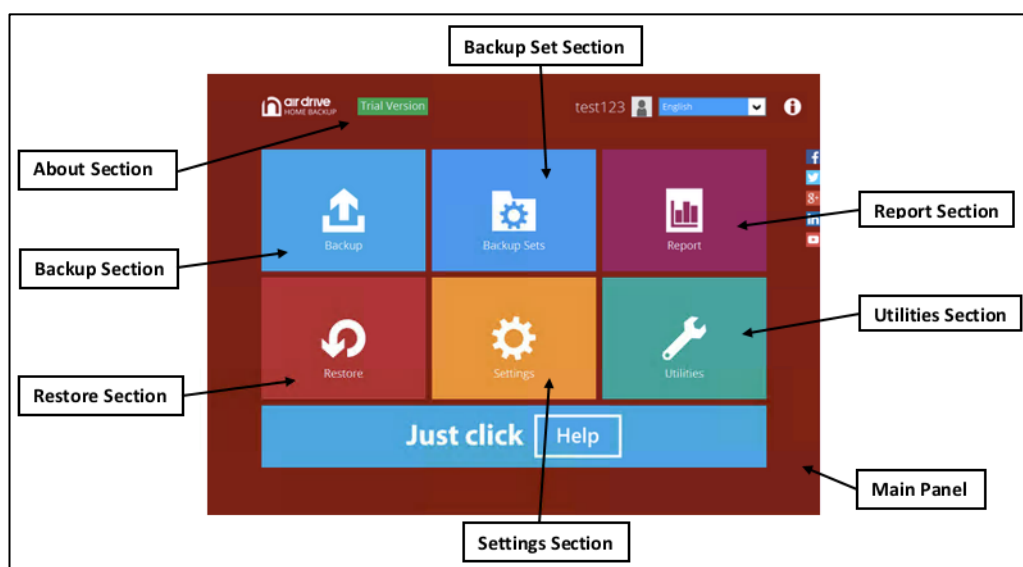
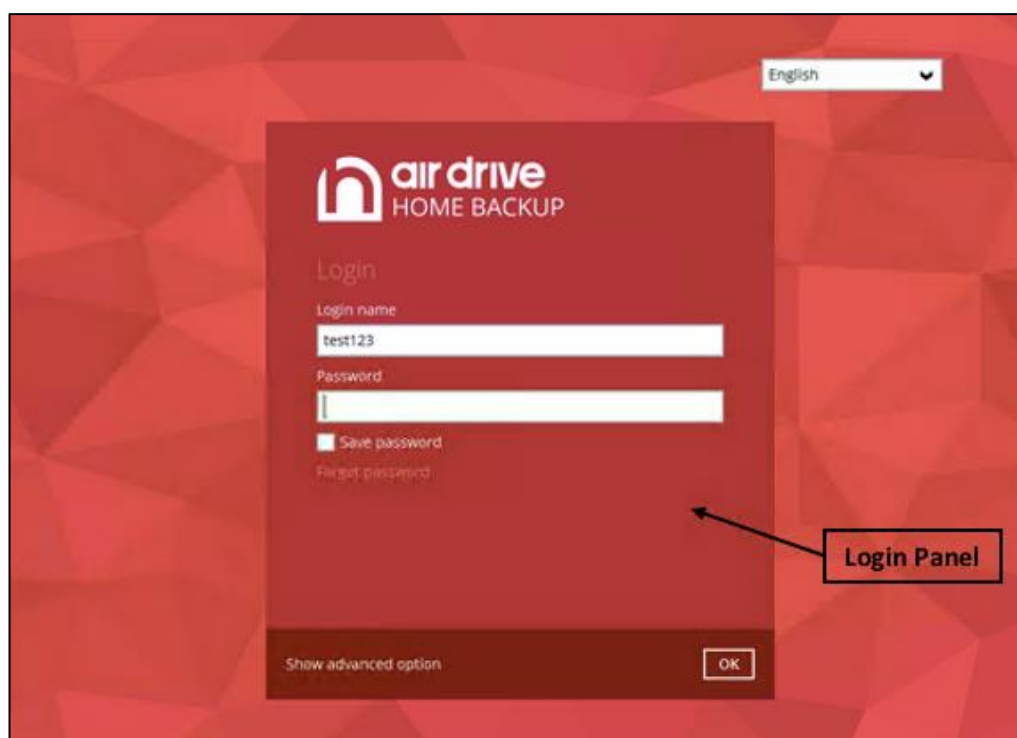



The screenshot shows the 'Color Scheme Settings' window. The left sidebar has a 'Rebrand Clients' section selected. The main area has tabs for 'Custom Properties', 'Application Settings - OBM', 'Application Settings - ACB', 'Custom Files - OBM', and 'Custom Files - ACB'. Below these are 'Custom Files - OBC', 'Color Scheme Settings - OBM', 'Color Scheme Settings - ACB', 'Digital Signature', and 'Build Installers'. The 'Color Scheme Settings' tab is active. It contains a 'Select one of the schemes' section with 'Predefined Scheme' and 'Custom Scheme' (selected). Below this are color pickers for 'Login Panel', 'Main Panel', 'About Section', 'Backup Section', 'Backup Set Section', 'Report Section', 'Restore Section', 'Setting Section', and 'Utilities Section'. Each picker shows a small color swatch. At the bottom right are icons for zoom, pan, and other window controls.

The color setting is based on hex color codes and you can either select the color using the palette or just input the hex color code. Please refer to the following link for details of hex color code: <http://www.color-hex.com/>



This is a close-up of the 'Color Scheme Settings' window. It shows the 'Select one of the schemes' section with 'Predefined Scheme' and 'Custom Scheme' (selected). Below this is the 'Login Panel' section. A color picker is open, showing a red color swatch. The picker has a large color field with a gradient from red to black, a vertical rainbow color bar on the right, and a text input field containing the hex code '#bf1e2d'. Below the input field are 'cancel' and 'choose' buttons.



Click on  at the bottom right corner to continue.

Note

After changing and saving the configuration of **Color Scheme Settings – ACB**, administrator cannot provide available online/ offline installer with according color scheme for client user to download and run until finish **[Build Installers] > [Build Branded Client]** successfully.

13. **Optional:** Click on the **Digital Signature** tab if you need to generate the installers with your digital certificate

The screenshot shows the 'Digital Signature' tab selected in the application settings. The left sidebar contains 'Profile', 'Backup User Settings', 'Rebrand Web Console', and 'Rebrand Clients'. The top navigation bar includes 'Custom Properties', 'Application Settings - OBM', 'Application Settings - ACB', 'Custom Files - OBM', 'Custom Files - ACB', 'Custom Files - OBC', 'Color Scheme Settings - OBM', 'Color Scheme Settings - ACB', 'Digital Signature', and 'Build Installers'. The main content area is titled 'Digital Signature' and contains the following options:

- Digital certification used to sign all EXE/JAR files ?
 - ☒ Use Ahsay Systems Corporation Certificate
 - ☐ Use certificate in mycredentials.spc/mycert.pfx uploaded
- Digital Certificate Password
 - ☐ Use existing
 - ☒ New
- Please select your certificate type ?
 - SPC and PVK
- mycredentials.spc
 - Browse... No file selected.
- myprivatekey.pvk
 - Browse... No file selected.

At the bottom right, there are icons for save, refresh, check, close, and help.

- i. Switch on the **Digital Signature** button.

This screenshot is similar to the previous one, but the 'Digital Signature' button in the top navigation bar is now checked, indicating it is active.

- ii. You can use our default digital certificate by selecting the **Use Ahsay Systems Corporation Certificate**.

The screenshot shows the 'Digital Signature' tab with the 'Use Ahsay Systems Corporation Certificate' radio button selected. The other options and fields remain the same as in the previous screenshots.

-OR-

If you prefer to use your own digital certificate, you can select **Use certificate in mycredentials.spc/mycert.pfx upload** option.

Digital Signature

Digital certification used to sign all EXE/JAR files ?

☒ Use Ahsay Systems Corporation Certificate
☐ Use certificate in mycredentials.spc/mycert.pfx uploaded

Digital Certificate Password

☐ Use existing
☒ New

Please select your certificate type ?

SPC and PVK ▼



mycredentials.spc

Choose File No file chosen

myprivatekey.pvk

Choose File No file chosen

Enter the digital certificate password and select the whether you are uploading a “SPC and PVK” or “PFX” digital certificate, then you can upload your digital certificate file.

14. Click  and  to save all the settings.
15. Go back to the **Build Installers** tab and click on the **Build Branded Client** button. AhsayCBS will request our customization portal to generate new installers.

Profile

Custom Properties Application Settings - OBM Application Settings - ACB Custom Files - OBM Custom Files - ACB

Backup User Settings Custom Files - OBC Color Scheme Settings - OBM Color Scheme Settings - ACB Digital Signature **Build Installers**

Rebrand Web Console

Rebrand Clients

Important! If you have changed the rebranding settings, please save them first before pressing this button. (Last update time : 2017-09-06 16:10:56)

Build Branded Client

Please be patient as the installer generation process should take around 5 to 10 minutes. The generation time depends on the traffic condition on the customization portal. The option will be greyed-out. You will be able to see the following message when the installer generation is completed.

Profile

Custom Properties Application Settings - OBM Application Settings - ACB Custom Files - OBM Custom Files - ACB

Backup User Settings Custom Files - OBC Color Scheme Settings - OBM Color Scheme Settings - ACB Digital Signature **Build Installers**

Rebrand Web Console

Rebrand Clients

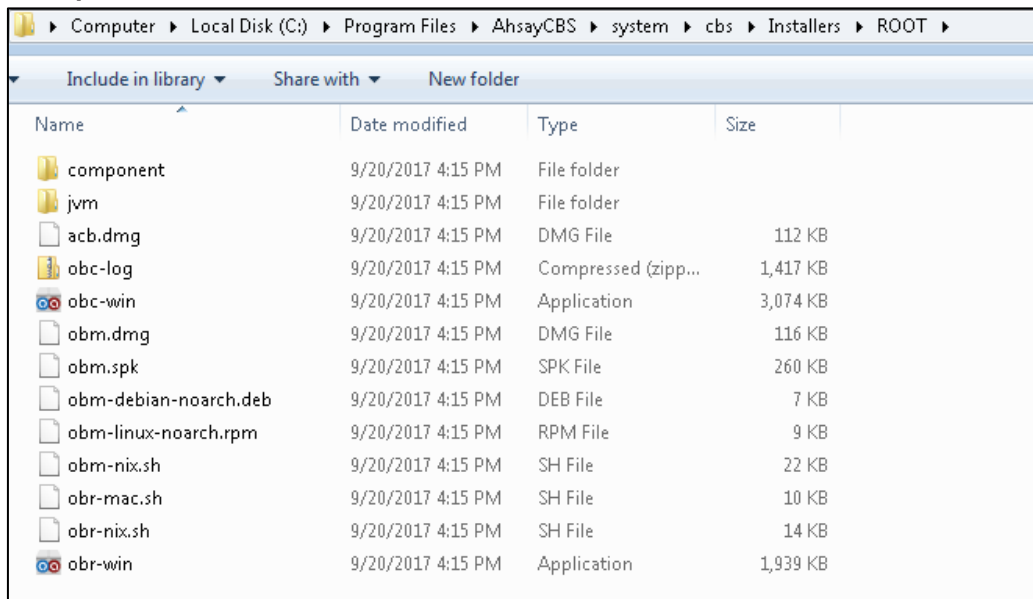
Branded installers are available from the download page. (Last update time: 2017-09-20 16:15:53)

Important! If you have changed the rebranding settings, please save them first before pressing this button. (Last update time : 2017-09-20 15:40:13)

Build Branded Client

You will be able to find the installers under the following path,
CBS_HOME\system\cbs\Installers\ROOT

Example:



Name	Date modified	Type	Size
component	9/20/2017 4:15 PM	File folder	
jvm	9/20/2017 4:15 PM	File folder	
acb.dmg	9/20/2017 4:15 PM	DMG File	112 KB
obc-log	9/20/2017 4:15 PM	Compressed (zipp...	1,417 KB
obc-win	9/20/2017 4:15 PM	Application	3,074 KB
obm.dmg	9/20/2017 4:15 PM	DMG File	116 KB
obm.spk	9/20/2017 4:15 PM	SPK File	260 KB
obm-debian-noarch.deb	9/20/2017 4:15 PM	DEB File	7 KB
obm-linux-noarch.rpm	9/20/2017 4:15 PM	RPM File	9 KB
obm-nix.sh	9/20/2017 4:15 PM	SH File	22 KB
obr-mac.sh	9/20/2017 4:15 PM	SH File	10 KB
obr-nix.sh	9/20/2017 4:15 PM	SH File	14 KB
obr-win	9/20/2017 4:15 PM	Application	1,939 KB

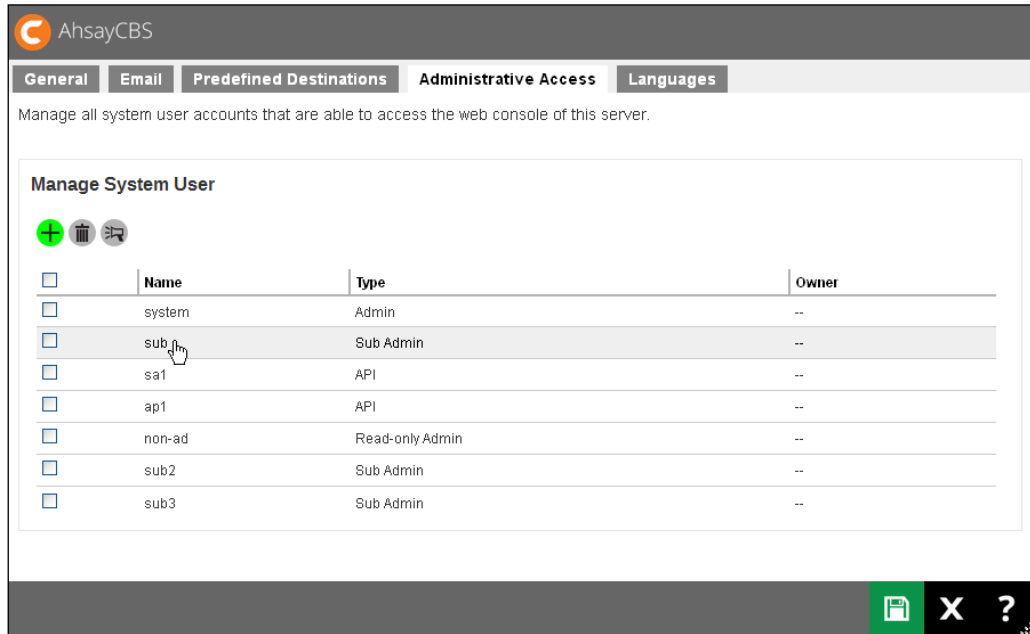
16. Please leave them inside this folder and it is forbidden to move them to other folders. When your customers access the web console by the system account's hostname, AhsayCBS will arrange the corresponding branded installers for users to download.
17. Download new installers from the installer download page in your AhsayCBS.
18. After you tested your installers, you can enable the client auto-update or update your client manually.
19. In case of any problems when the installer is being built, you will see the **Download Log** button.



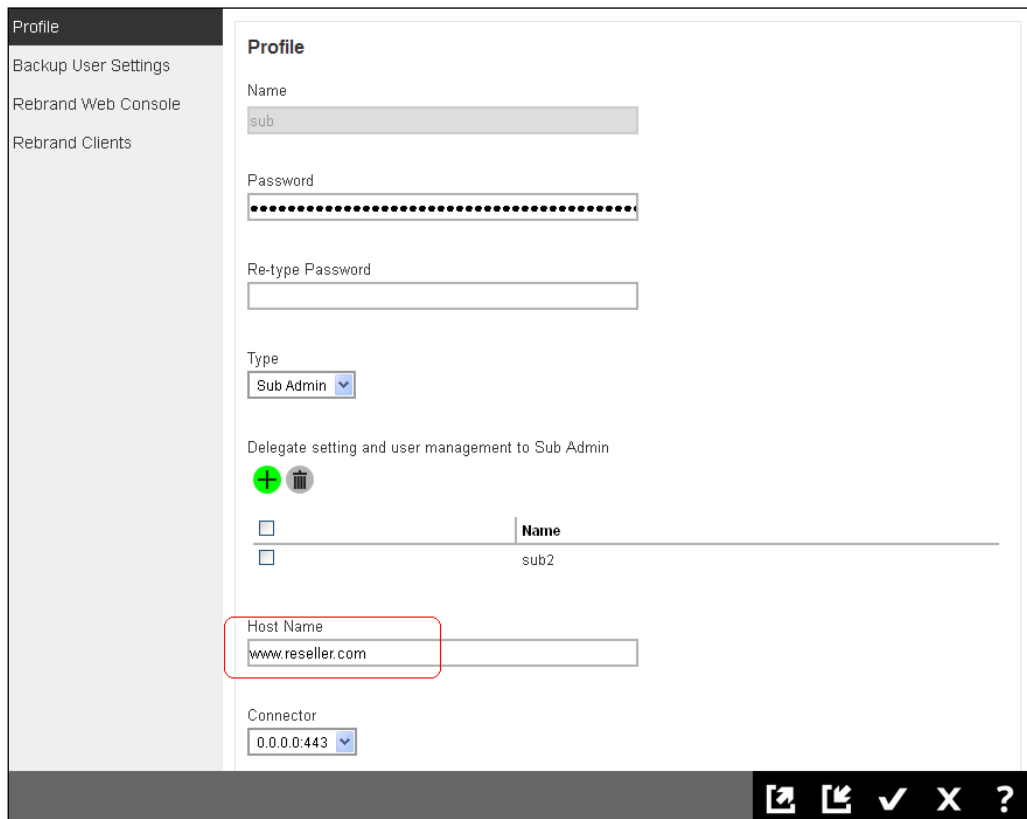
Click on the **Download Log** button and you can download the branding log file **obc-log.zip** and you can take a look into the log for troubleshooting the branding issue.

Brand the AhsayCBS Interface and AhsayOBM/AhsayACB Installers for your Resellers

1. Click in **System Settings -> Basic -> Administrative Access**.
2. Click into the sub admin account that you want to apply the branding.

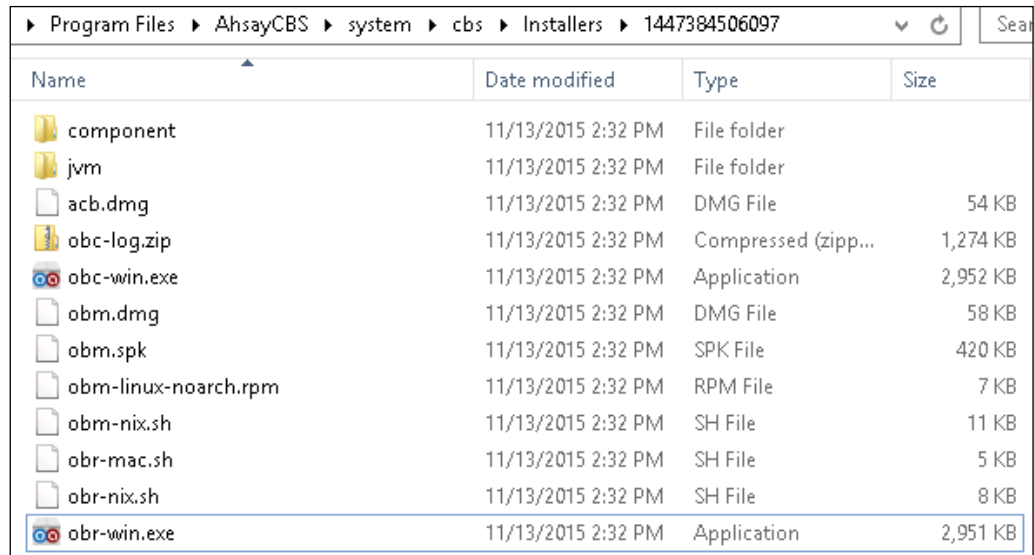


3. Make sure there is a correct hostname in sub admin **Profile** page.



- Please follow the steps in previous chapters to brand their own web console, and rebrand the AhsayOBM/AhsayACB installers. The branded installers is stored in **CBS_HOME\system\cbs\Installer\%Reseller_ID%**

Example:



Program Files > AhsayCBS > system > cbs > Installers > 1447384506097				Search
Name	Date modified	Type	Size	
component	11/13/2015 2:32 PM	File folder		
jvm	11/13/2015 2:32 PM	File folder		
acb.dmg	11/13/2015 2:32 PM	DMG File	54 KB	
obc-log.zip	11/13/2015 2:32 PM	Compressed (zip) File	1,274 KB	
obc-win.exe	11/13/2015 2:32 PM	Application	2,952 KB	
obm.dmg	11/13/2015 2:32 PM	DMG File	58 KB	
obm.spk	11/13/2015 2:32 PM	SPK File	420 KB	
obm-linux-noarch.rpm	11/13/2015 2:32 PM	RPM File	7 KB	
obm-nix.sh	11/13/2015 2:32 PM	SH File	11 KB	
obr-mac.sh	11/13/2015 2:32 PM	SH File	5 KB	
obr-nix.sh	11/13/2015 2:32 PM	SH File	8 KB	
obr-win.exe	11/13/2015 2:32 PM	Application	2,951 KB	

Please leave them inside this folder and it is forbidden to move them to other folders. When your reseller's customer access to the web console by the system account's hostname, AhsayCBS will arrange the corresponding branded installers for users to download.

Customize Application Name on Cloud Storages

Request for Permission Pages

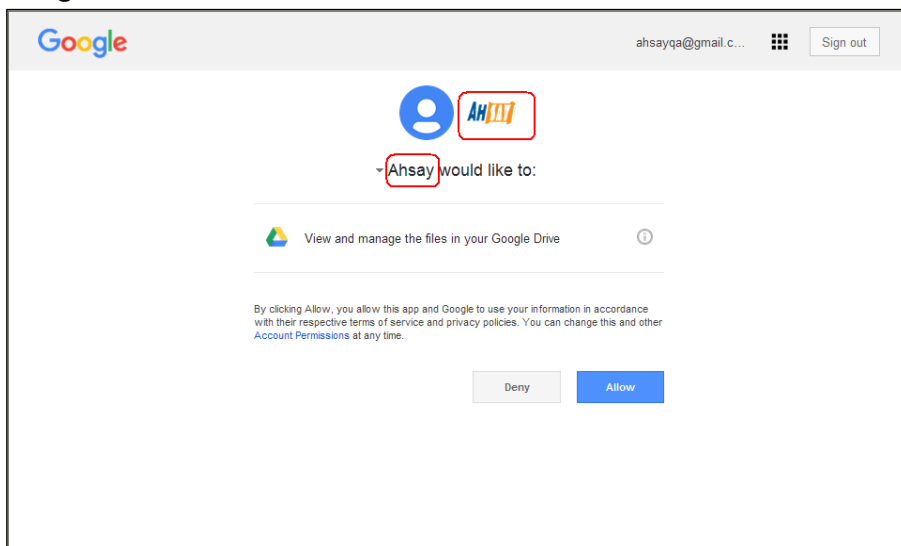
When your client set up the cloud storage on

1. Amazon Cloud Drive
2. Dropbox
3. Google Drive
4. OneDrive
5. OneDrive for Business

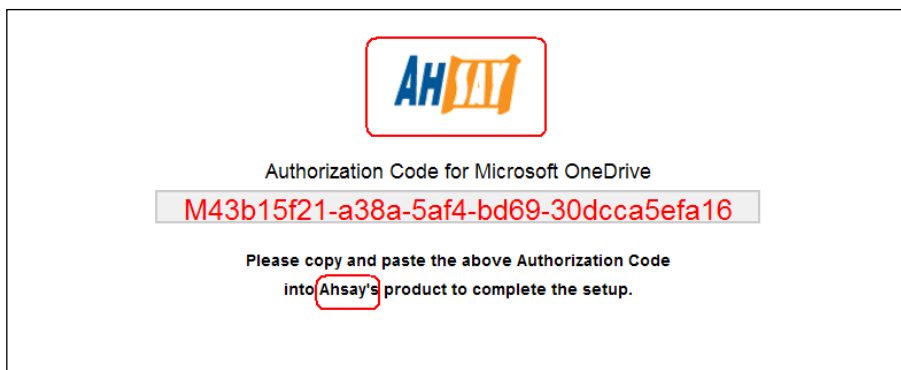
AhsayOBM/AhsayACB would forward an URL through the browser to the cloud storage. The cloud storage would require your client to login and/or prompt the following page to get client's approval for the AhsayOBM/AhsayACB to access the cloud storage.

For example:

Google Drive



One Drive



In these request for permission pages, you can see the “Ahsay” logo and the “Ahsay” wording. You can setup the destination settings in the policy group in your AhsayCBS to customize the branding.

Preparation

Before you customize the logo and application name on the request for permission page, you need to collect the following details:

Amazon Cloud Drive

- Client ID
- Client Secret
- Native application redirect URI

Dropbox

- Application key
- Application secret

Google Drive

- Client ID
- Client Secret

OneDrive

- Client ID
- Client Secret
- Native application redirect URI

OneDrive for Business

- Client ID
- Native application redirect URI

This information are required to collect from your cloud storage account.

Reference

Dropbox

<https://www.dropbox.com/developers/support>

Google Drive

https://developers.google.com/drive/v3/web/enable-sdk#enable_the_drive_api
<https://auth0.com/docs/connections/social/google>

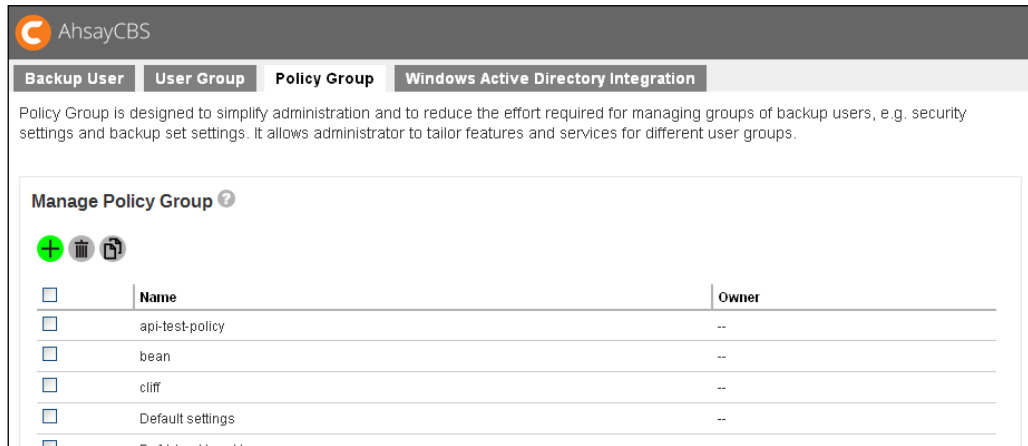
OneDrive and OneDrive for Business

<https://dev.onedrive.com/app-registration.htm>

Configure the storage

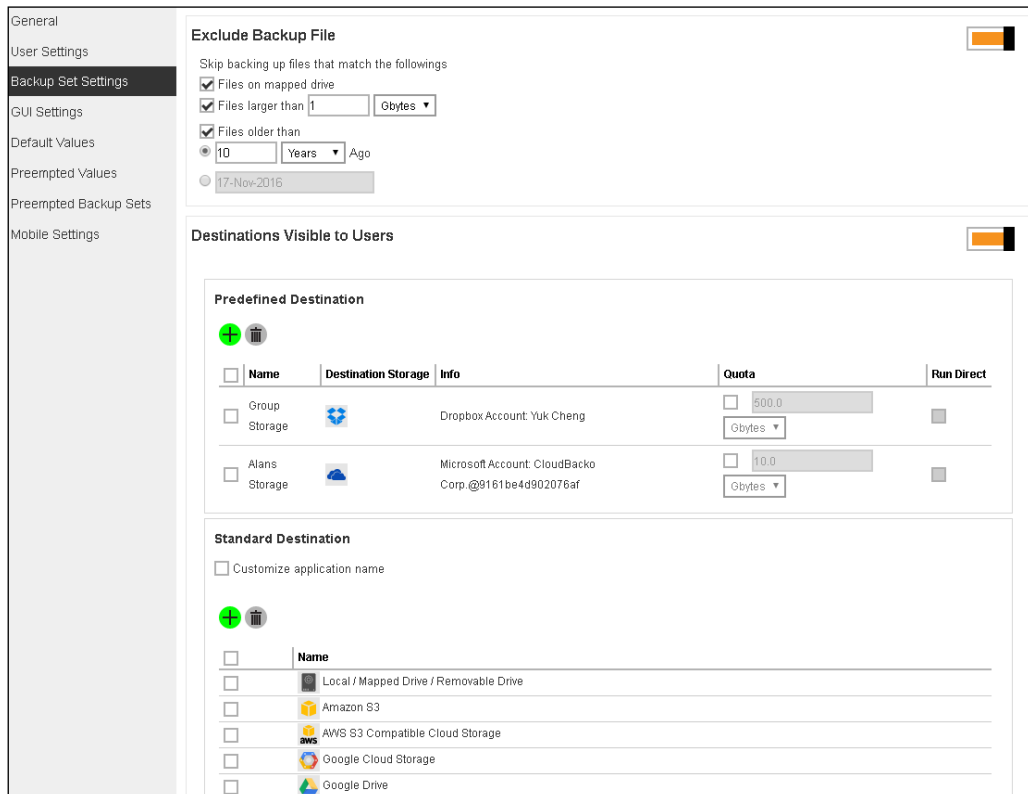
After you have collected the above information from your cloud/developer account, you can put the relevant information in the policy settings of your AhsayCBS.

1. Navigate to **Backup/Restore -> Users, Group & Policies**, then select the **Policy Group** tab.



2. Select the policy group that you want to apply the setting.

3. Click into **Backup Set Settings** tab.



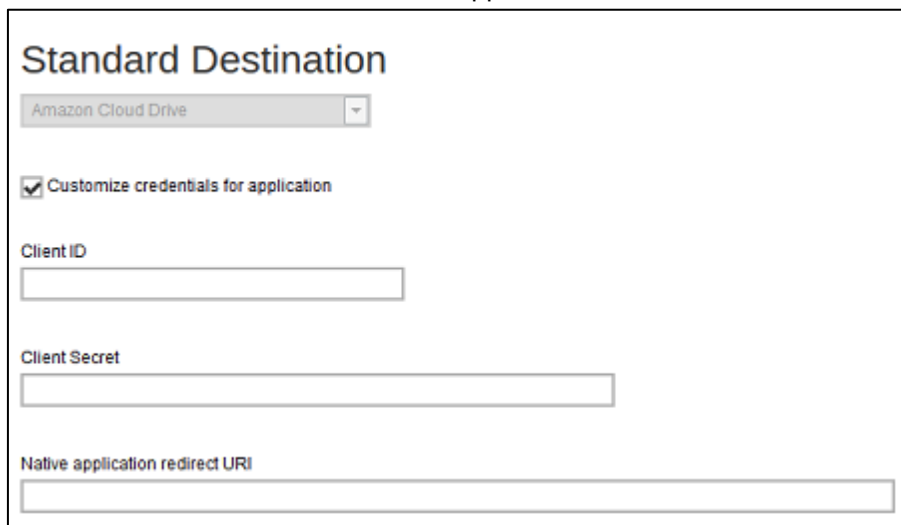
4. Turn on the switch "Destinations Visible to Users"
5. Scroll to the bottom part of "Destinations Visible to Users"

You can select one of the following cloud storage to customize


- Amazon Cloud Drive
- Dropbox
- Google Drive
- OneDrive
- OneDrive for Business

Amazon Cloud Drive

1. Click into Amazon Cloud Drive
2. Enable the “Customize credentials for application”

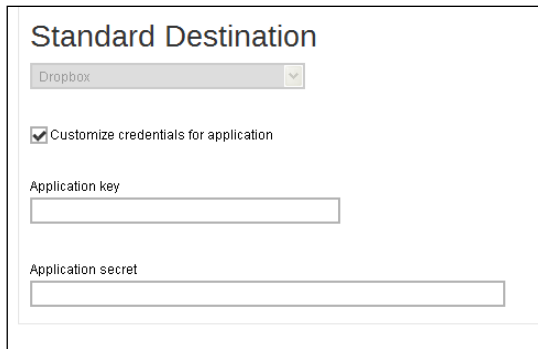


The screenshot shows a window titled "Standard Destination". At the top, there is a dropdown menu with "Amazon Cloud Drive" selected. Below this is a checkbox labeled "Customize credentials for application" which is checked. Underneath the checkbox are three input fields: "Client ID", "Client Secret", and "Native application redirect URI". The "Client ID" and "Client Secret" fields are currently empty, while the "Native application redirect URI" field contains a long, partially obscured string.

3. Enter the “Client ID”
4. Enter the “Client Secret”
5. Enter the “Native application redirect URI”
6. Click  to continue.

Dropbox

1. Click into Dropbox
2. Enable the “Customize credentials for application” option.




Standard Destination

Dropbox

☒ Customize credentials for application

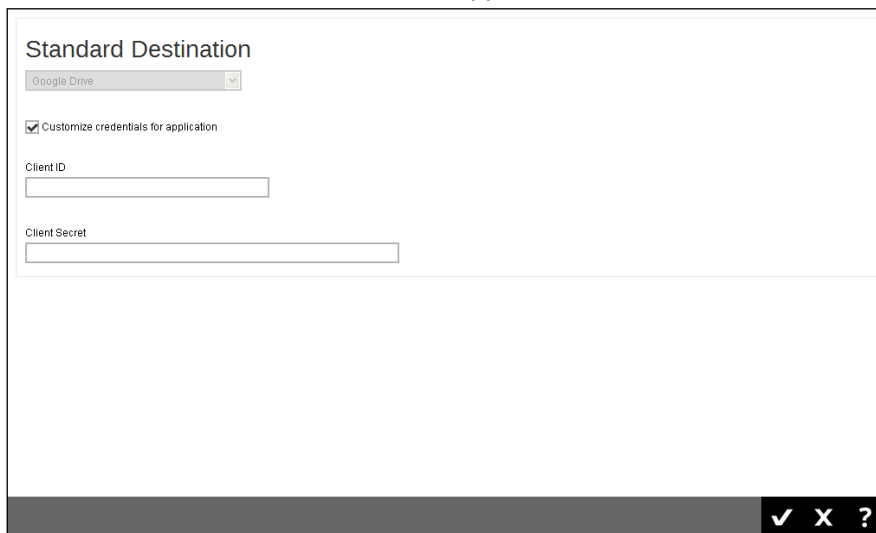
Application key

Application secret

3. Enter the “Application Key”
4. Enter the “Application Secret”
5. Click  to continue.

Google Drive

1. Click into Google Drive
2. Enable the “Customize credentials for application”



Standard Destination


Google Drive

☒ Customize credentials for application

Client ID

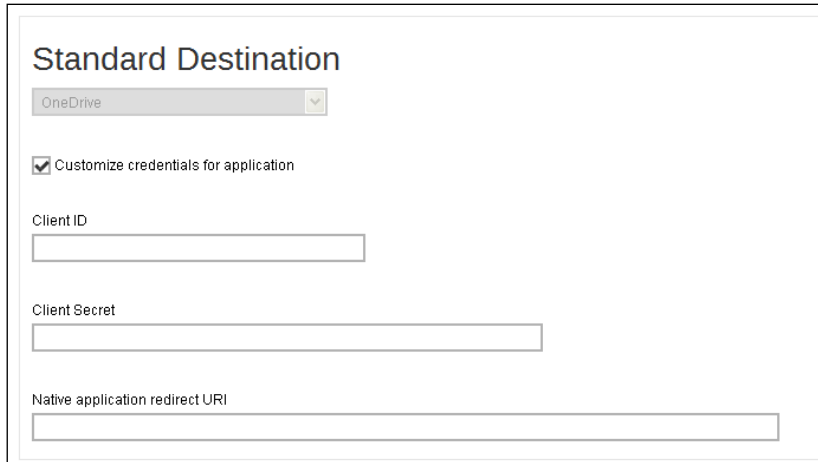
Client Secret

✓ X ?


3. Enter the “Client ID”
4. Enter the “Client Secret”
5. Click  to continue.

OneDrive

1. Click into OneDrive
2. Enable the “Customize credentials for application”

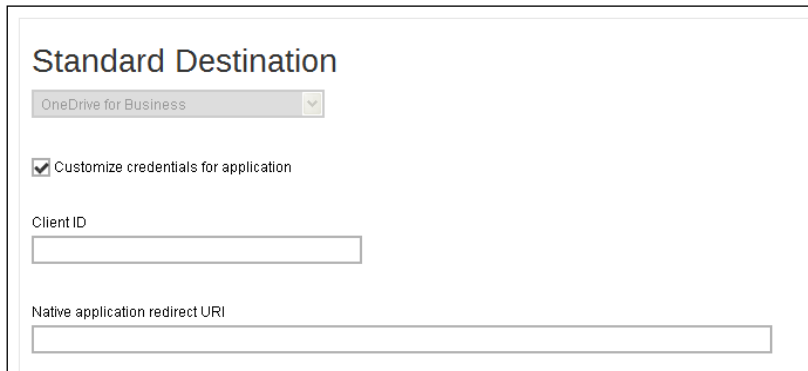


The screenshot shows a configuration window titled "Standard Destination". At the top, there is a dropdown menu with "OneDrive" selected. Below this, there is a checkbox labeled "Customize credentials for application" which is checked. Underneath the checkbox, there are three text input fields: "Client ID", "Client Secret", and "Native application redirect URI". The "Client ID" and "Client Secret" fields are currently empty, while the "Native application redirect URI" field contains a long, placeholder-like string.


3. Enter the “Client ID”
4. Enter the “Client Secret”
5. Enter the “Native application redirect URI”
6. Click  to continue.

OneDrive for Business

1. Click into OneDrive for Business
2. Enable the “Customize credentials for application”



The screenshot shows a configuration window titled "Standard Destination". At the top, there is a dropdown menu with "OneDrive for Business" selected. Below this, there is a checkbox labeled "Customize credentials for application" which is checked. Underneath the checkbox, there are two text input fields: "Client ID" and "Native application redirect URI". The "Client ID" field is currently empty, while the "Native application redirect URI" field contains a long, placeholder-like string.

3. Enter the “Client ID”
4. Enter the “Native application redirect URI”
5. Click  to continue.

Customize the Folder/Bucket name in Standard Destination

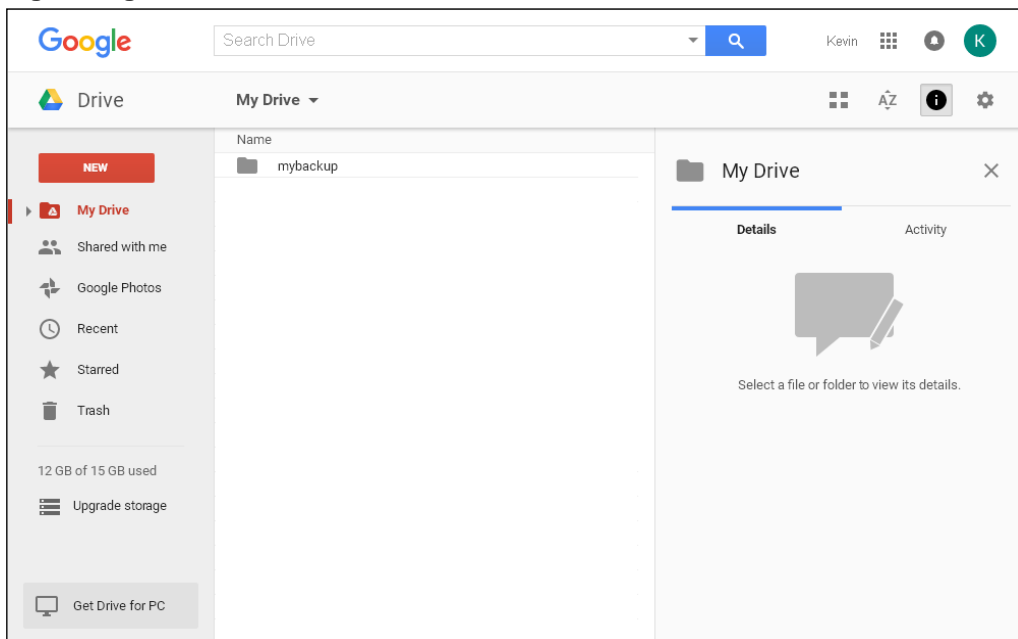
Navigate to **Backup/Restore -> Users, Group & Policies**, then select the **Policy Group** tab. Click on the desired Policy Group, then select the **Backup Set Settings** section on the left. You can customize the application name (folder/bucket name) in different storages from there.

In the following example, we set the “Customize application name” as “mybackup”, when backup to the cloud storage (e.g.: Google Drive), the folder name “mybackup” will be created.

The screenshot shows the 'Backup Set Settings' interface. On the left sidebar, 'Backup Set Settings' is selected. The main content area has two sections: 'Exclude Backup File' and 'Destinations Visible to Users'. The 'Exclude Backup File' section has a toggle switch and checkboxes for 'Files on mapped drive', 'Files larger than 10 Gbytes', and 'Files older than 10 Years Ago'. The 'Destinations Visible to Users' section has a 'Predefined Destination' table and a 'Standard Destination' section. The 'Standard Destination' section has a checkbox for 'Customize application name' which is checked, and a text input field containing 'mybackup'. Below this is a table for destinations with columns 'Name', 'Destination Storage', 'Info', 'Quota', and 'Run Direct'. The table shows 'Local / Mapped Drive / Removable Drive' and 'Amazon S3'.

Name	Destination Storage	Info	Quota	Run Direct
Local / Mapped Drive / Removable Drive				
Amazon S3				

E.g.: Google Drive



Customize the Storage in Predefined Destination

The screenshot shows the 'Backup Set Settings' window. On the left is a sidebar with options: General, User Settings, Backup Set Settings (selected), GUI Settings, Default Values, Preempted Values, and Preempted Backup Sets. The main area has two sections:

- Exclude Backup File:** Includes a checkbox to 'Skip backing up files that match the followings'. Below are three checked options: 'Files on mapped drive', 'Files larger than 10 Gbytes', and 'Files older than 10 Years Ago'. There is also a date selector for '01-Apr-2016'.
- Destinations Visible to Users:** Contains a 'Predefined Destination' section with a table header (checkbox, Name, Destination Storage, Info, Quota, Run Direct) and a 'Standard Destination' section with a checked 'Customize application name' option and a text field containing 'mybackup'.

Navigate to **Backup/Restore -> Users, Group & Policies**, then select the **Policy Group** tab. Click on the desired Policy Group, then select the **Backup Set Settings** section on the left. You can add a predefined destination for your clients, and your clients will be able to select the predefined destination when they create a new backup set.

Example:

The screenshot shows a dialog box titled 'New Storage Destination / Destination Pool'. It has a 'Name' field with 'CBS' entered. Under 'Type', 'Single storage destination' is selected. The 'Destination storage' dropdown menu is open, showing a list of options: CBS, CBS, MyStorage (highlighted), Local / Mapped Drive / Removable Drive, 阿里云, 中国电信天翼云, Amazon S3, AWS S3 Compatible Cloud Storage, and Google Cloud Storage. At the bottom right are 'OK', 'Cancel', and 'Help' buttons.

Note

You need to add a predefined destination in advance, after that you can set the predefined destination visible to your user group.

11 API

In this release, new APIs (now in JSON format) are introduced in the AhsayCBS, if you have written API in previous version, please test and modify your API calls on AhsayCBS v7 in your testing environment first, so that it will not affect your current CRM, billing systems etc. when new AhsayCBS is upgraded. Please download the [AhsayCBS API guide](#) from our website for reference.

12 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 Wikipedia for resource such as Hardware Compatibility List, Software Compatibility List, and other product information:

<https://wiki.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 Supported Language Code

Language Code	Language
ar	Arabic
ca	Catalan
cs	Czech
da	Danish
de	German
el	Greek Modern
en	English
es	Spanish
eu	Euskara/Basque
fr	French
iw	Hebrew
hu	Hungarian
it	Italian
ja	Japanese
ko	Korean
lt	Lithuanian
nl	Dutch
no	Norwegian
pl	Polish
pt_BR	Portuguese (Brazil)
pt_PT	Portuguese (Portugal)
sl	Slovenian
sv	Swedish
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:

- The license key has been used on more than one machine.
- Change of network card of the server machine or moving the AhsayCBS 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 AhsayCBS 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 AhsayCBS 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 AhsayCBS server to the Internet and that you can connect to lic.ahsay.com with HTTPS from the AhsayCBS backup server. There is a connection test button underneath the license field entry box to test the connection to our license server. The testing result will be displayed next to the test button.

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:

- The license key has been used on more than one machine.
- Change of the MAC address, local / remote IP address, or local port that AhsayCBS is installed on.

Solution:

Persistent 1012 license errors can occur if your AhsayCBS 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.ahsay.com, so that the remote IP address on the server will remain the same every time a connection to lic.ahsay.com is established.

Appendix D **Differences between AhsayOBS v6 vs AhsayCBS v7**

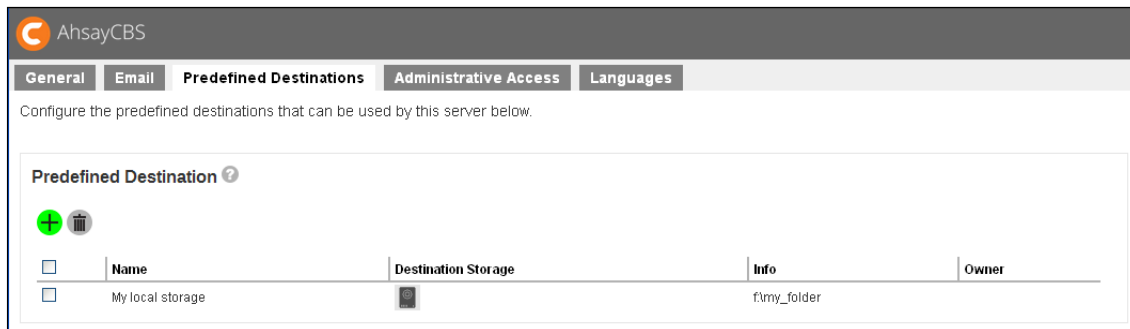
AhsayCBS has been totally re-designed from the ground upwards to provide the best cloud backup solution with changes to core functions, such as file storage system, indexing, backup set features, replication, group policy, system user and branding. To understand the differences between AhsayCBS and previous version of our product, please visit our website for details.

For a list of key differences between the AhsayOBS v6 and AhsayCBS v7, refer to [Differences Between v6 & v7](#).

Appendix E Setting up Cloud Storage

In the following examples, we are demonstrating how to setup cloud storage in predefined destinations.

Add a predefined destination in **System Settings -> Basic -> Predefined Destinations**, click on the **Add** button.



Aliyun (阿里云)

This storage option is available on computers with China or Hong Kong locale settings.

1. If you do not have the Aliyun (阿里云), please click on the link 'Sign up for 阿里云' to create an account.
2. Select '阿里云' from the **Destination storage** drop down box.
3. Enter name of the backup destination.

The 'Add New Predefined Destination' form contains the following fields and options:

- Name:** Text input field containing 'Aliyun-1'.
- Type:** Radio buttons for 'Single storage destination' (selected) and 'Destination pool'.
- Destination Storage:** Dropdown menu with '阿里云' selected.
- Access Key ID:** Text input field.
- Access Key Secret:** Text input field.
- Region:** Dropdown menu with 'Hangzhou' selected.
- (optional) Bucket Name:** Text input field.
- Test:** Button to test the configuration.
- Sign up for 阿里云:** Link to create an account.

4. Select Single storage destination.

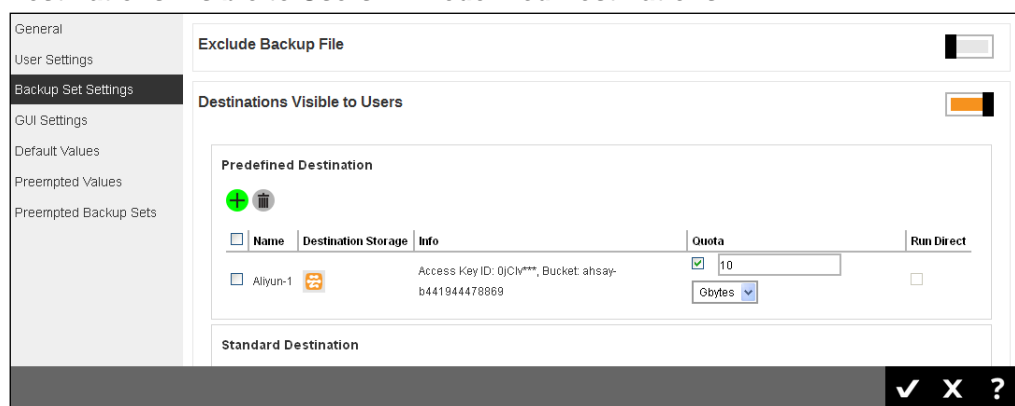
Note: The option **Destination Pool** is defined from a number of single storage destination.

5. Enter the Access Key ID.

6. Enter the Access Key Secret.
7. Select the region from the dropdown box.
8. Click **Add** to continue the setup.
9. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the “**Default settings**”, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

10. Add the newly created predefined storage “Aliyun-1” into the **Backup Set Settings -> Destinations Visible to Users -> Predefined Destinations**.



11. Enable the quota and apply the quota.
12. When you create a backup set for a user, you will be able to see the new predefined destination.

CTYun (中国电信天翼云)

This storage option is available on computers with China or Hong Kong locale settings.

1. If you do not have the CTYun (中国电信天翼云), please click on the link 'Sign up for 中国电信天翼云' to create an account.
2. Select '中国电信天翼云' from the [Destination storage] drop down box.

3. Enter name of the backup destination.

Add New Predefined Destination

Name
CTYun-1

Type
☒ Single storage destination
☐ Destination pool

Destination Storage
中国电信天翼云

Access Key ID

Secret Access Key

Test

[Sign up for 中国电信天翼云](#)

4. Select Single storage destination.

Note: The option **Destination Pool** is defined from a number of single storage destination.

5. Enter the Access Key ID.
6. Enter the Secret Access Key.
7. Click **[Add]** to continue the setup.
8. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

9. Add the newly created predefined storage “CTYun-1” into the **Backup Set Settings -> Destinations Visible to Users -> Predefined Destinations**.

General

User Settings

Backup Set Settings

GUI Settings

Default Values

Preempted Values

Preempted Backup Sets

Exclude Backup File

Destinations Visible to Users

Predefined Destination

Name	Destination Storage	Info	Quota	Run Direct
CTYun-1	中国电信天翼云	Access Key ID: GbXWl***, Bucket: ahsay-2052050534046	<input checked="" type="checkbox"/> 10 Gbytes	<input type="checkbox"/>

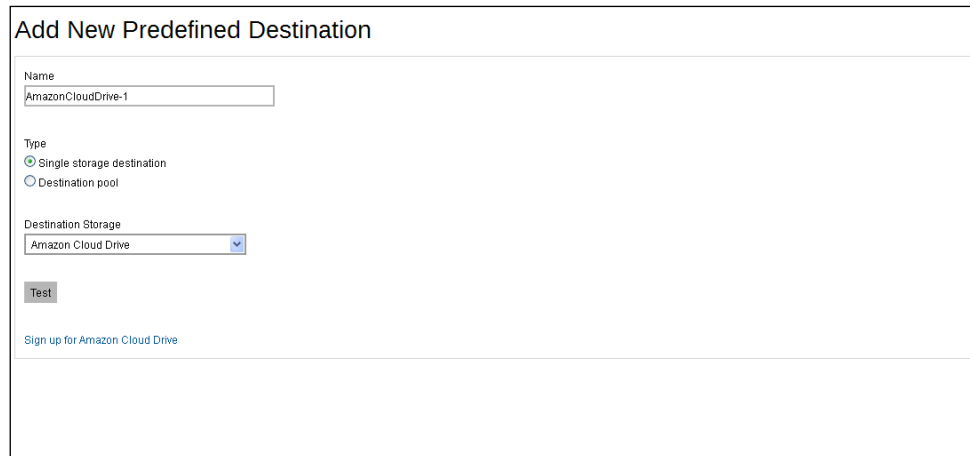
Standard Destination

✓ X ?

10. Enable the quota and apply the quota.
11. When you create a backup set for a user, you will be able to see the new predefined destination.

Amazon Cloud Drive

1. If you do not have the Amazon Cloud Drive, please click on the link **Sign up for Amazon Cloud Drive** to create an account.
2. Select 'Amazon Cloud Drive' from the [Destination storage] drop down box.
3. Enter name of the backup destination.



Add New Predefined Destination

Name
AmazonCloudDrive-1

Type
☒ Single storage destination
☐ Destination pool

Destination Storage
Amazon Cloud Drive

Test

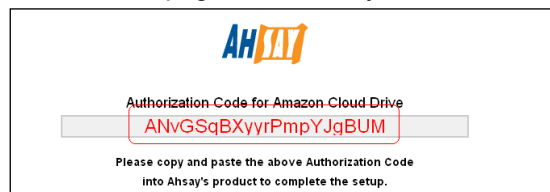
[Sign up for Amazon Cloud Drive](#)

4. Select "Single storage destination".

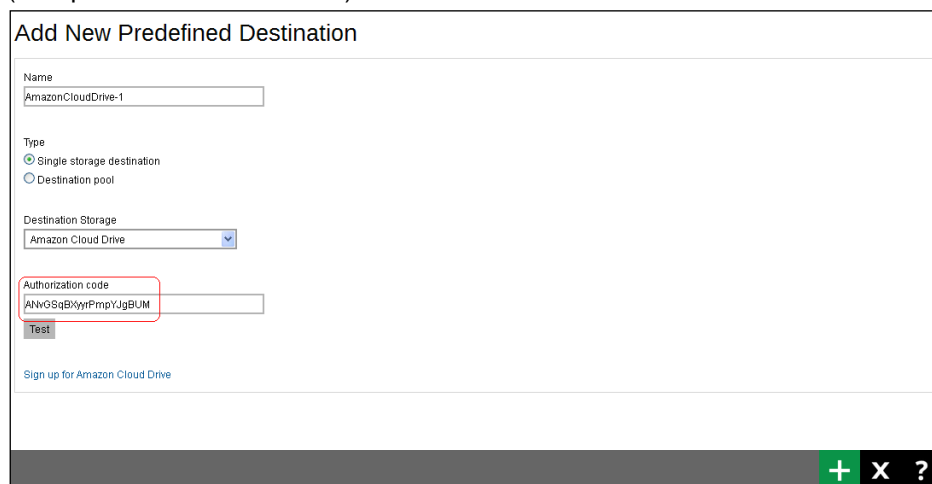
Note: The option **Destination Pool** is defined from a number of single storage destination.

5. Click [Add] to continue the setup.

On the browser, a code is displayed, copy it and paste into the “**create predefined destination**” page in the AhsayCBS.



(Sample authentication code)



Add New Predefined Destination

Name
AmazonCloudDrive-1

Type
☒ Single storage destination
☐ Destination pool

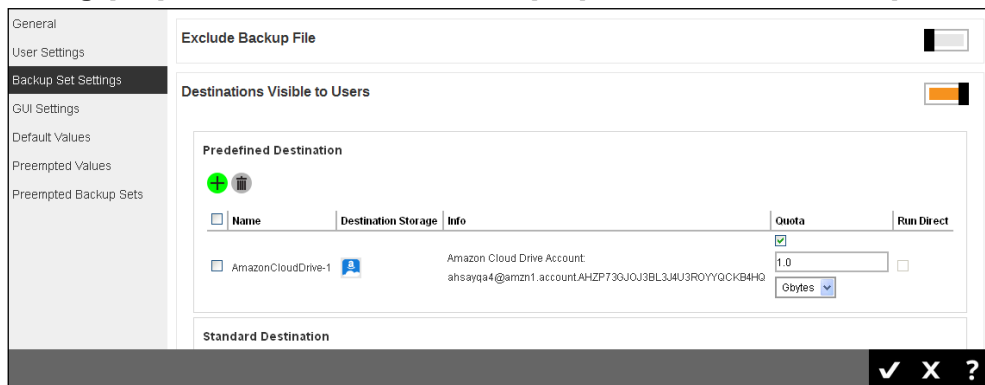
Destination Storage
Amazon Cloud Drive

Authorization code
ANvGSqBXyrrPmpYJgBUM

Test

[Sign up for Amazon Cloud Drive](#)

6. Click **Add** to continue.
7. Enter to the Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group, edit the Default settings policy.
8. (By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)
9. Add the newly created predefined storage “AmazonCloudDrive-1” into the [**Backup Set Settings**] -> [**Destinations Visible to Users**] -> [**Predefined Destinations**].



10. Enable the quota and apply the quota.
11. When you create a backup set for a user, you will be able to see the new predefined destination.

Amazon S3

1. If you do not have the Amazon S3, please click on the link **Sign up for Amazon S3** to create an account.
2. Select **Amazon S3** from the [**Destination storage**] drop down box.
3. Enter name of the backup destination

Add New Predefined Destination

Name

AmazonS3-1

Type

☒ Single storage destination
 ☐ Destination pool

Destination Storage

Amazon S3

Location

US Standard (N. Virginia)

Access Key ID

Secret Access Key

Test

[Sign up for Amazon S3](#)

4. Select Single storage destination.
Note: The option **Destination Pool** is defined from a number of single storage destination.
5. Select the “**Location**” from the drop down box.
6. Enter the Access Key ID.
7. Enter the Secret Access Key.
8. Click [**Add**] to continue the setup.
9. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.
10. (By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)
11. Add the newly created predefined storage “AmazonS3-1” into the [Backup Set Settings] -> [Destinations Visible to Users] -> [Predefined Destinations].

The screenshot shows the 'Backup Set Settings' window with the 'Destinations Visible to Users' tab selected. The 'Predefined Destination' section contains a table with the following data:

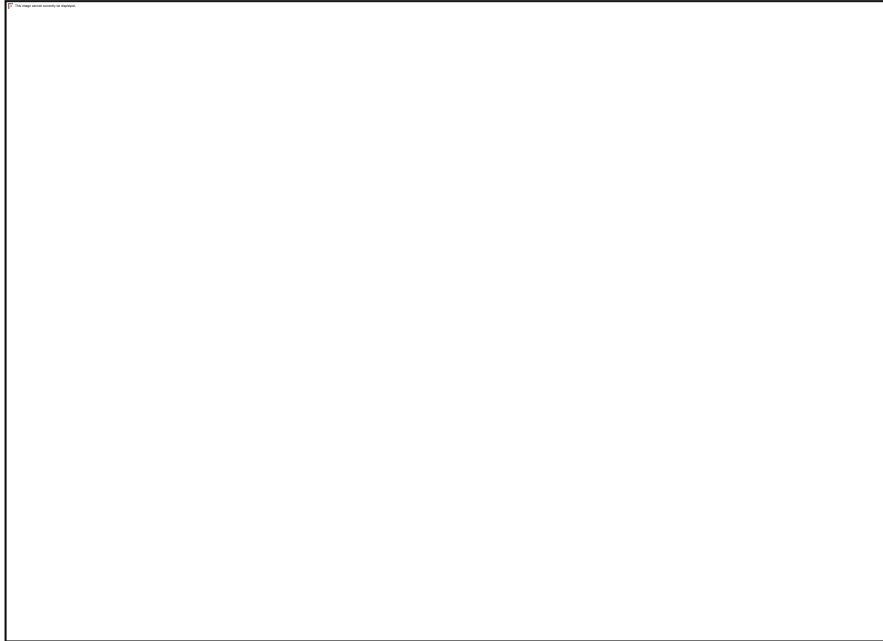
Name	Destination Storage	Info	Quota	Run Direct
<input type="checkbox"/> AmazonS3-1		Access Key: AKIAJ***, Bucket: ahsay-2952223790661	<input checked="" type="checkbox"/> 10 Gbytes	<input type="checkbox"/>

At the bottom of the window, there are buttons for '✓', 'X', and '?'.

12. Enable the quota and apply the quota.
13. When you create a backup set for a user, you will be able to see the new predefined destination.

AWS S3 Compatible Cloud Storage

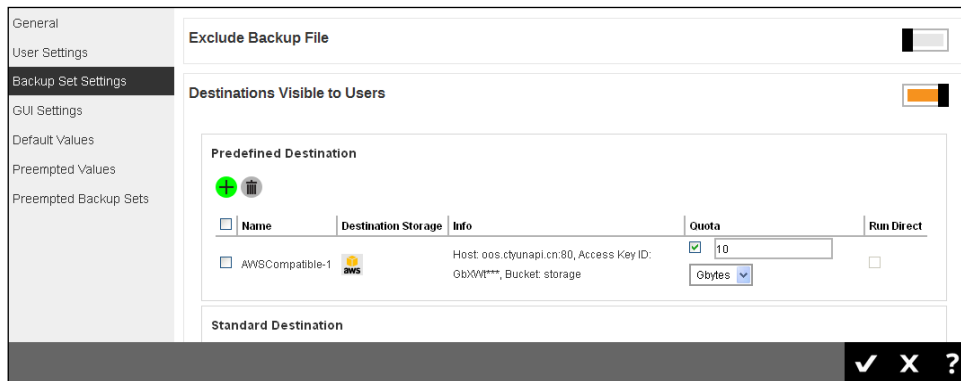
1. Select AWS S3 Compatible Cloud Storage from the Destination storage drop down box.
2. Enter name of the backup destination.



3. Select Single storage destination.
Note: The option **Destination Pool** is defined from a number of single storage destination.
4. Enter the Host and Port number.
5. Enter the Access Key ID.
6. Enter the Secret Access Key.
7. Enter the **Bucket Name** for the storage. (You need to create this bucket manually first).
8. Click [**Add**] to continue the setup.
9. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

10. Add the newly created predefined storage "AWSCompatible-1" into the [**Backup Set Settings**] -> [**Destinations Visible to Users**] -> [**Predefined Destinations**].



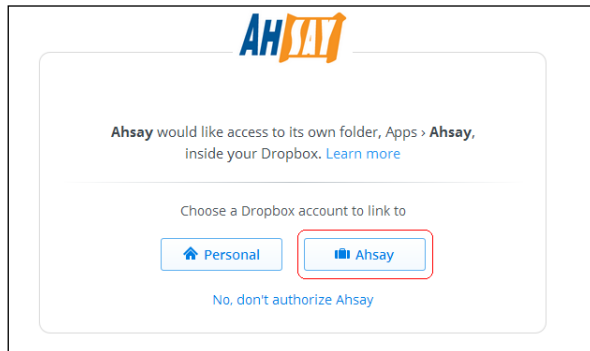
11. Enable the quota and apply the quota.
12. When you create a backup set for a user, you will be able to see the new predefined destination.

Dropbox

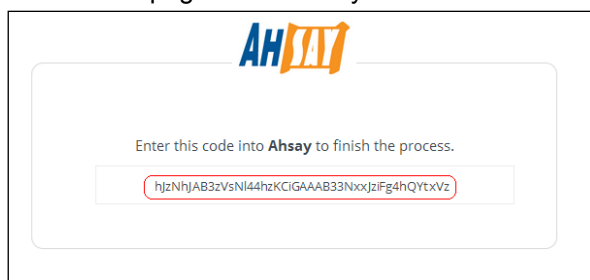
1. If you do not have the Dropbox, please click on the link 'Sign up for Dropbox' to create an account.
2. Select 'Dropbox' from the [Destination storage] drop down box.
3. Enter name of the backup destination.

4. Select Single storage destination.
Note: The option **Destination Pool** is defined from a number of single storage destination.
5. Click [**Add**] to continue the setup.

6. A browser will pop up and Dropbox will ask for your permission to access the storage, click on "Ahsay".



7. On the browser, a code is displayed, copy it and paste into the "create predefined destination" page in the AhsayCBS.

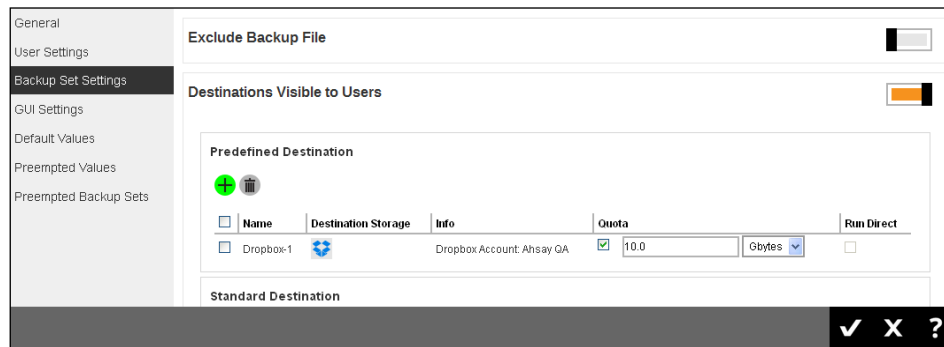


(Sample authentication code)

8. Click **Add** to continue the setup.
9. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the "**Default settings**", all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

10. Add the newly created predefined storage “Dropbox-1” into the **Backup Set Settings -> Destinations Visible to Users -> Predefined Destinations**.



11. Enable the quota and apply the quota.
12. When you create a backup set for a user, you will be able to see the new predefined destination.

Google Cloud Storage

****** Before you set up the storage for Google Cloud Storage, please collect the Access Key and Secret Key from your Google Cloud Storage account first.

1. Go to the Google Developers Console.
2. Click the name of the project you would like to use as your default project.
3. In the left sidebar, click APIs & auth.
4. Find Google Cloud Storage JSON API and make sure it is enabled. When the JSON API is enabled, the Status will display "ON".
5. Next to the Google Cloud Storage JSON API service, click the settings gear icon.
6. Click Interoperable Access in the left sidebar.
7. Click Generate new key.
8. The access key part of the new developer key is displayed.
9. Click Show to show the secret part of the new developer key.
Now, you can go back to add your predefined destination.
10. If you do not have the Google Cloud Storage, please click on the link **Sign up for Google Cloud Storage** to create an account.
11. Select Google Cloud Storage from the Destination storage drop down box.

12. Enter name of the backup destination.

Add New Predefined Destination

Name
GoogleCloudStorage-1

Type
☒ Single storage destination
☐ Destination pool

Destination Storage
Google Cloud Storage

Location
US

Access Key

Secret

Test

[Sign up for Google Cloud Storage](#)

13. Select Single storage destination.

Note: The option **Destination Pool** is defined from a number of single storage destination.

14. Click [Add] to continue the setup.

15. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

16. Add the newly created predefined storage “GoogleCloudStorage-1” into the [Backup Set Settings] -> [Destinations Visible to Users] -> [Predefined Destinations].

General
User Settings
Backup Set Settings
GUI Settings
Default Values
Preempted Values
Preempted Backup Sets

Exclude Backup File

Destinations Visible to Users

Predefined Destination

Name	Destination Storage	Info	Quota	Run Direct
GoogleCloudStorage-1		Access Key: GOOGN***, Bucket: ahsay-9e51983138611-us	<input checked="" type="checkbox"/> 10 Gbytes	<input type="checkbox"/>

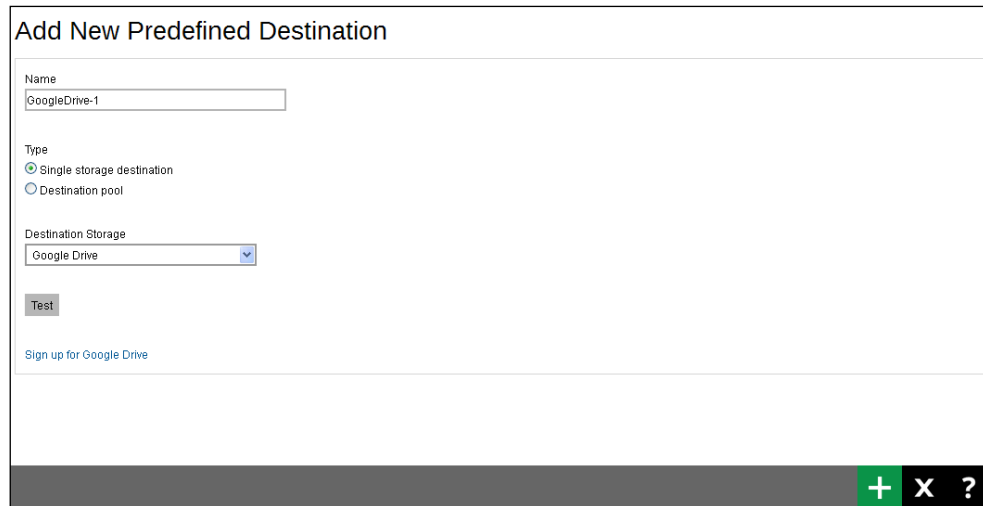
Standard Destination

17. Enable the quota and apply the quota.

18. When you create a backup set for a user, you will be able to see the new predefined destination.

Google Drive

1. If you do not have the Google Drive, please click on the link '**Sign up for Google Drive**' to create an account.
2. Select 'Google Drive' from the [**Destination storage**] drop down box.
3. Enter name of the backup destination.

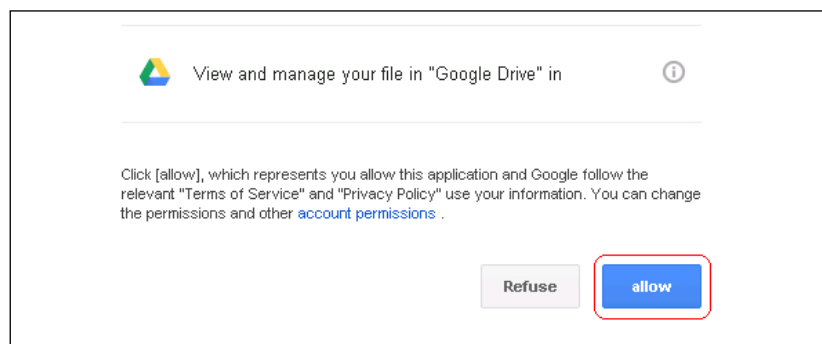


The screenshot shows a web form titled "Add New Predefined Destination". It contains the following fields and controls:

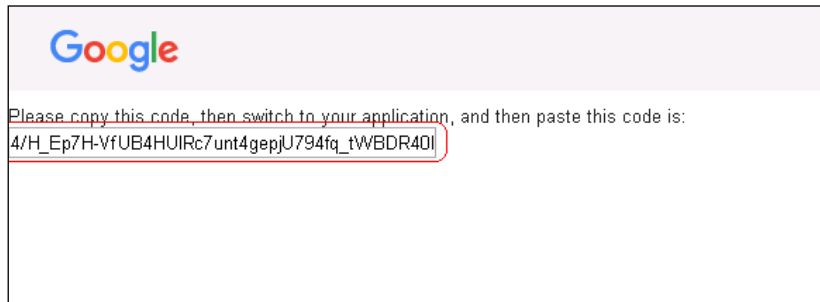
- Name:** A text input field with the value "GoogleDrive-1".
- Type:** Two radio button options: "Single storage destination" (which is selected) and "Destination pool".
- Destination Storage:** A dropdown menu with "Google Drive" selected.
- Test:** A button.
- Sign up for Google Drive:** A link.

At the bottom right of the form, there are three icons: a green plus sign (+), a black X, and a black question mark (?).

4. Select Single storage destination.
Note: The option **Destination Pool** is defined from a number of single storage destination.
5. Click [**Add**] to continue the setup.
6. A browser will pop up and Google will ask for your permission to access the storage, click on "**Allow**".



7. On the browser, a code is displayed, copy it and paste into the “create predefined destination” page in the AhsayCBS.



(Sample authentication code)

8. Click **[Add]** to continue.
9. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

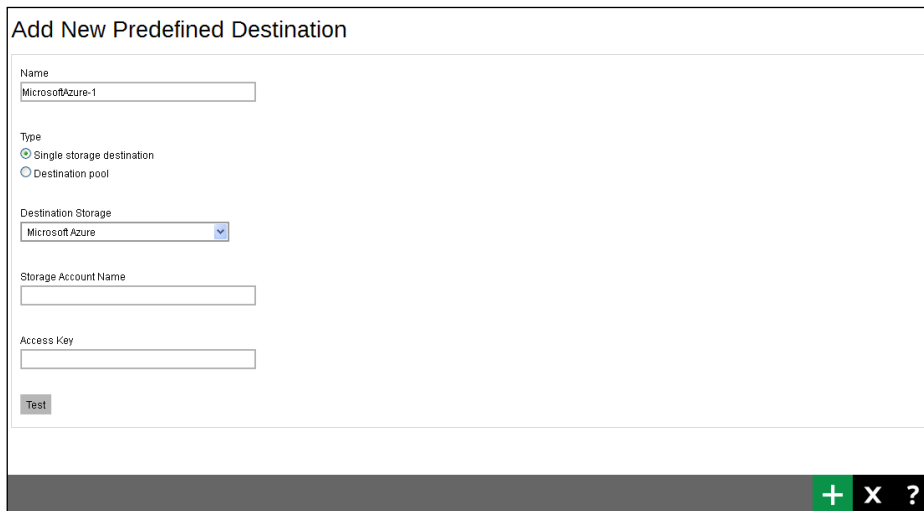
10. Add the newly created predefined storage “GoogleDrive-1” into the **[Backup Set Settings] -> [Destinations Visible to Users] -> [Predefined Destinations]**.

11. Enable the quota and apply the quota.
12. When you create a backup set for a user, you will be able to see the new predefined destination.

Microsoft Azure

**** Before you setup the storage for Microsoft Azure, please collect the Storage Account Name and Access Key from your Microsoft Azure account first.**

1. Go to the Microsoft Azure web page.
2. Click the "portal" link at the top of the page.
3. Login to the portal.
4. Click on the "**MANAGE ACCESS KEYS**" link at the bottom of the page.
5. The "**STORAGE ACCOUNT NAME**" and "**PRIMARY ACCESS KEY**" are displayed. The Storage account name is the same as the node name when you create this Windows Azure account.
6. Copy the "**STORAGE ACCOUNT NAME**" and "**PRIMARY ACCESS KEY**" to your AhsayOBM application.
(Suggested to copy and paste the name and key to avoid typographical errors.)
Now, you can go back to add your predefined destination.
7. Select 'Microsoft Azure' from the [Destination storage] drop down box.
8. Enter name of the backup destination.



9. Select Single storage destination.
Note: The option **Destination Pool** is defined from a number of single storage destination.
10. Enter the Storage Account Name.

11. Enter the Access Key.
12. Click [**Add**] to continue the setup.
13. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

14. Add the newly created predefined storage “MicrosoftAzure-1” into the [**Backup Set Settings**] -> [**Destinations Visible to Users**] -> [**Predefined Destinations**].

The screenshot shows the 'Backup Set Settings' window. On the left is a sidebar with options: General, User Settings, Backup Set Settings (selected), GUI Settings, Default Values, Preempted Values, and Preempted Backup Sets. The main area is titled 'Destinations Visible to Users'. It contains a 'Predefined Destination' section with a table:

Name	Destination Storage	Info	Quota	Run Direct
MicrosoftAzure-1		Storage Account Name: ahsay, Container: ahsay-3751983725189	10 Gbytes	<input type="checkbox"/>

Below the table is a 'Standard Destination' section which is currently empty. At the bottom right are buttons for '✓', '✗', and '?'. The 'Exclude Backup File' checkbox is checked.

15. Enable the quota and apply the quota.
16. When you create a backup set for a user, you will be able to see the new predefined destination.

OneDrive

1. If you do not have the OneDrive, please click on the link 'Sign up for OneDrive' to create an account.
2. Select 'OneDrive' from the [**Destination storage**] drop down box.
3. Enter name of the backup destination.

The screenshot shows the 'Add New Predefined Destination' dialog box. It has the following fields and options:

- Name:** OneDrive-1
- Type:** Single storage destination (selected), Destination pool
- Destination Storage:** OneDrive (selected in dropdown)
- Test:** A button to test the connection.
- Sign up for OneDrive:** A link to create a new account.

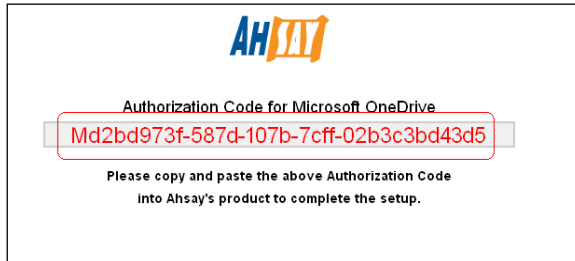
At the bottom right are buttons for '+', '✗', and '?'. The background is dark grey.

4. Select Single storage destination.

Note: The option **Destination Pool** is defined from a number of single storage destination.

5. Click [**Add**] to continue the setup.

6. A browser will popup and a code is displayed, copy it and paste into the “**create predefined destination**” page in the AhsayCBS.



(Sample authentication code)

A screenshot of the "Add New Predefined Destination" form. The form has the following fields: "Name" (text box with "OneDrive-1"), "Type" (radio buttons for "Single storage destination" (selected) and "Destination pool"), "Destination Storage" (dropdown menu with "OneDrive" selected), "Authorization code" (text box with "Md2bd973f-587d-107b-7cff-02b3c3bd43d5" highlighted by a red box), a "Test" button, and a "Sign up for OneDrive" link. At the bottom right of the form are three buttons: a green "+" button, a black "X" button, and a black "?" button.

7. Click [**Add**] to continue the setup.

8. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

9. Add the newly created predefined storage “OneDrive-1” into the [Backup Set Settings] -> [Destinations Visible to Users] -> [Predefined Destinations].

The screenshot shows the 'Backup Set Settings' window. On the left is a sidebar with options: General, User Settings, Backup Set Settings (selected), GUI Settings, Default Values, Preempted Values, and Preempted Backup Sets. The main area is titled 'Destinations Visible to Users'. It contains a 'Predefined Destination' section with a table:

Name	Destination Storage	Info	Quota	Run Direct
OneDrive-1	OneDrive	Microsoft Account: ahsay test2@e08a35401fb2040d	10 Obytes	<input type="checkbox"/>

Below the table is a 'Standard Destination' section which is currently empty. At the bottom right are buttons for 'Add' (+), 'Remove' (X), and 'Help' (?).

10. Enable the quota and apply the quota.
11. When you create a backup set for a user, you will be able to see the new predefined destination.

OneDrive for Business

1. If you do not have the OneDrive for Business, please click on the link 'Sign up for OneDrive for Business' to create an account.
2. Select 'OneDrive' from the [Destination storage] drop down box.
3. Enter name of the backup destination.

The screenshot shows the 'Add New Predefined Destination' dialog box. It has the following fields and options:

- Name:** OneDriveForBusiness-1
- Type:** Single storage destination (selected), Destination pool
- Destination Storage:** OneDrive for Business (selected in dropdown)
- Buttons:** Test, Sign up for OneDrive for Business

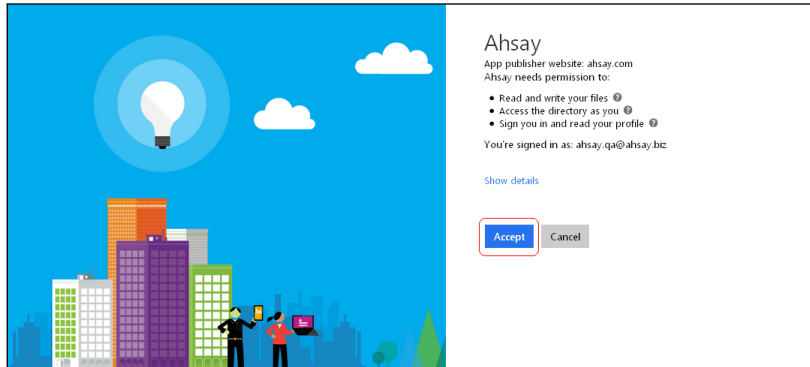
At the bottom right are buttons for 'Add' (+), 'Remove' (X), and 'Help' (?).

4. Select Single storage destination.

Note: The option **Destination Pool** is defined from a number of single storage destination.

5. Click [Add] to continue the setup.

6. A browser will pop up and Microsoft will ask for your permission to access the storage, click on "**Accept**".



7. On the browser, a code is displayed, copy it and paste into the "create predefined destination" page in the AhsayCBS.

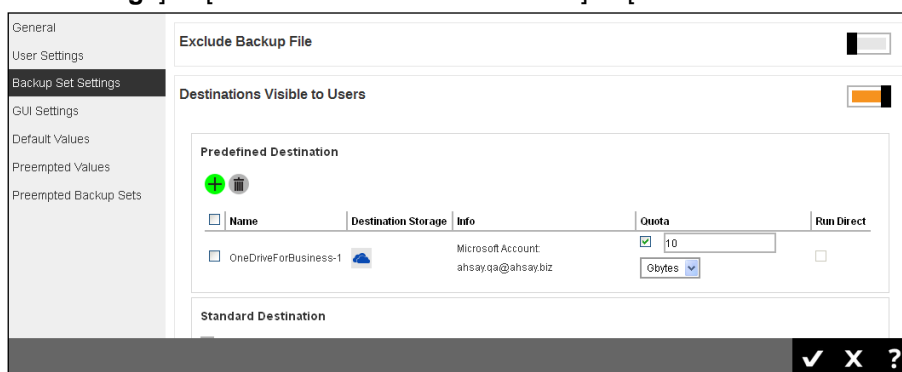


(Sample authentication code)

8. Click [**Add**] to continue.
9. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

10. Add the newly created predefined storage “OneDriveForBusiness-1” into the [Backup Set Settings] -> [Destinations Visible to Users] -> [Predefined Destinations].



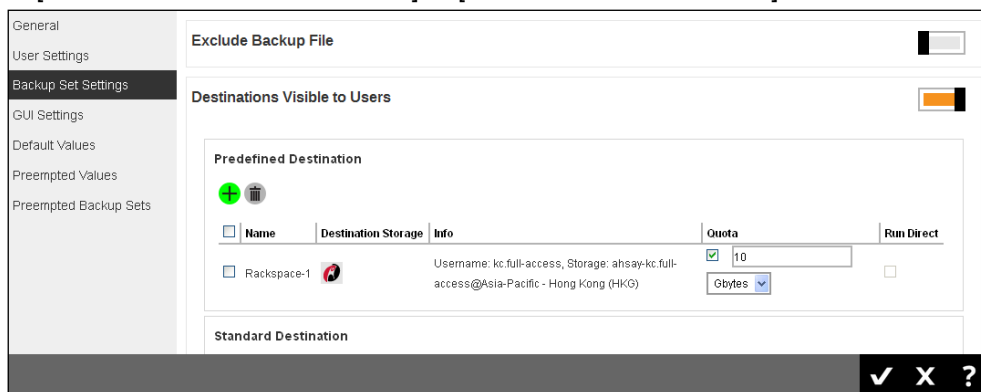
11. Enable the quota and apply the quota.
12. When you create a backup set for a user, you will be able to see the new predefined destination.

Rackspace

1. If you do not have the Rackspace, please click on the link 'Sign up for Rackspace' to create an account.
2. Select 'Rackspace' from the [Destination storage] drop down box.
3. Enter name of the backup destination.

4. Select Single storage destination.
Note: The option **Destination Pool** is defined from a number of single storage destination.
5. Enter the User Name.
6. Enter the API Key.

7. Click **[Add]** to continue the setup.
8. It will prompt for the “Region”, select the “Region” from the dropdown box.
9. Click **[Add]** to continue the setup.
10. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.
(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)
11. Add the newly created predefined storage “Rackspace-1” into the **[Backup Set Settings] -> [Destinations Visible to Users] -> [Predefined Destinations]**.



12. Enable the quota and apply the quota.
13. When you create a backup set for a user, you will be able to see the new predefined destination.

OpenStack

1. Select 'OpenStack' from the **[Destination storage]** drop down box.
2. Enter name of the backup destination.

Add New Predefined Destination

Name

Type

☒ Single storage destination
☐ Destination pool

Destination Storage

Host
Port

Username

Password

☐ Connect with SSL

Test

3. Select Single storage destination.

Note: The option **Destination Pool** is defined from a number of single storage destination.

4. Enter the Host and Port number.
5. Enter the Username.
6. Enter the Password.
7. Option: Click on the check box “**Connect with SSL**” if necessary.
8. Click [**Add**] to continue the setup.
9. The page will request to enter more information after the initial connection.

The screenshot shows a web-based form titled "Add New Predefined Destination". The form contains the following fields and options:

- Name:** A text input field containing "OpenStack-1".
- Type:** Two radio button options: "Single storage destination" (selected) and "Destination pool".
- Destination Storage:** A dropdown menu showing "OpenStack".
- Host:** A text input field containing "10.7.54.10".
- Port:** A text input field containing "5000".
- Username:** A text input field containing "name1".
- Password:** A text input field with masked characters (dots).
- Project:** A dropdown menu showing "ahsay".
- Region:** A dropdown menu showing "RegionOne".
- Container:** A text input field containing "name1.container".
- Connect with SSL:** An unchecked checkbox.
- Test:** A button located below the checkbox.

At the bottom right of the form, there are three icons: a green plus sign (+), a red X, and a question mark (?).

10. Select the “**Project**” in the dropdown box.
11. Select the “**Region**” in the dropdown box.
12. Enter the container name.
13. Click [**Add**] to continue the setup.
14. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

15. Add the newly created predefined storage “OpenStack-1” into the [Backup Set Settings] -> [Destinations Visible to Users] -> [Predefined Destinations].

The screenshot shows the 'Backup Set Settings' window with the 'Destinations Visible to Users' tab selected. Under 'Predefined Destination', there is a table with the following data:

Name	Destination Storage	Info	Quota	Run Direct
OpenStack-1	[Icon]	Host: 10.7.54.10:5000, Storage: ahsayname1.container@RegionOne	<input checked="" type="checkbox"/> 10 Gbytes	<input type="checkbox"/>

Below the table is a 'Standard Destination' section which is currently empty. At the bottom right, there are buttons for '✓', 'X', and '?'. The left sidebar contains navigation links: General, User Settings, Backup Set Settings (selected), GUI Settings, Default Values, Preempted Values, and Preempted Backup Sets.

16. Enable the quota and apply the quota.
17. When you create a backup set for a user, you will be able to see the new predefined destination.

FTP

1. Select 'FTP' from the [Destination storage] drop down box.
2. Enter name of the backup destination.

The screenshot shows the 'Add New Predefined Destination' form. The fields are filled as follows:

- Name: FTP-1
- Type: ☒ Single storage destination, ☐ Destination pool
- Destination Storage: FTP (selected from dropdown)
- Host: [Empty field]
- Port: [Empty field]
- Username: [Empty field]
- Password: [Empty field]
- (optional) FTP directory to store backup data (default to ~/Ahsay): [Empty field]
- ☐ Connect with SSL
- Test button

At the bottom right, there are buttons for '+', 'X', and '?'. The form is titled 'Add New Predefined Destination'.

3. Select Single storage destination.

Note: The option **Destination Pool** is defined from a number of single storage destination.

4. Enter the Host and Port number.
5. Enter the Username.

6. Enter the Password.
7. Option: Enter the FTP directory if you have one.
8. Click [**Add**] to continue the setup.
9. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.

(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

10. Add the newly created predefined storage “FTP-1” into the [**Backup Set Settings**] -> [**Destinations Visible to Users**] -> [**Predefined Destinations**].

The screenshot shows the 'Backup Set Settings' window. On the left is a sidebar with options: General, User Settings, Backup Set Settings (selected), GUI Settings, Default Values, Preempted Values, and Preempted Backup Sets. The main area is titled 'Destinations Visible to Users' and contains a 'Predefined Destination' section. This section has a table with the following data:

Name	Destination Storage	Info	Quota	Run Direct
FTP-1	FTP	Host: 10.7.0.7.21, User: qa	<input checked="" type="checkbox"/> 10.0 Gbytes	<input type="checkbox"/>

Below the table is a 'Standard Destination' section which is currently empty. At the bottom right of the window are three buttons: a checkmark, an 'X', and a question mark.

11. Enable the quota and apply the quota.
12. When you create a backup set for a user, you will be able to see the new predefined destination.

SFTP

1. Select 'SFTP' from the [Destination storage] drop down box.
2. Enter name of the backup destination.

Add New Predefined Destination

Name
SFTP-1

Type
☒ Single storage destination
☐ Destination pool

Destination Storage
SFTP

Host Port

Username

Password

(optional) SFTP directory to store backup data (default to ~\Ahsay)

Test

3. Select Single storage destination.
Note: The option **Destination Pool** is defined from a number of single storage destination.
4. Enter the Host and Port number.
5. Enter the Username.
6. Enter the Password.
7. Option: Enter the SFTP directory if you have one.
8. Click [**Add**] to continue the setup.
9. Enter to the **Backup/Restore -> Users, Groups & Policies -> Policy Group -> Manage Policy Group**, edit the **Default settings** policy.
(By applying the changes to the **Default settings**, all the users will be able to see and use the settings by default. If you need to create a predefined destination for a particular group of users, you need to create a new policy group and user group for this.)

10. Add the newly created predefined storage “SFTP-1” into the [Backup Set Settings] -> [Destinations Visible to Users] -> [Predefined Destinations].

The screenshot shows the 'Backup Set Settings' window. On the left is a sidebar with navigation links: General, User Settings, Backup Set Settings (selected), GUI Settings, Default Values, Preempted Values, and Preempted Backup Sets. The main area is titled 'Destinations Visible to Users' and contains a 'Predefined Destination' section. This section has a table with columns: Name, Destination Storage, Info, Quota, and Run Direct. A single entry is listed: 'SFTP-1' with storage 'SFTP' and info 'Host: ftp-lin.shr-pt.local:22, User: qa_sftp'. The 'Quota' column shows a checked checkbox, the value '10.0', a unit dropdown set to 'Gbytes', and an unchecked 'Run Direct' checkbox. Below the table is a 'Standard Destination' section. At the bottom right of the window are three buttons: a checkmark, an 'X', and a question mark.

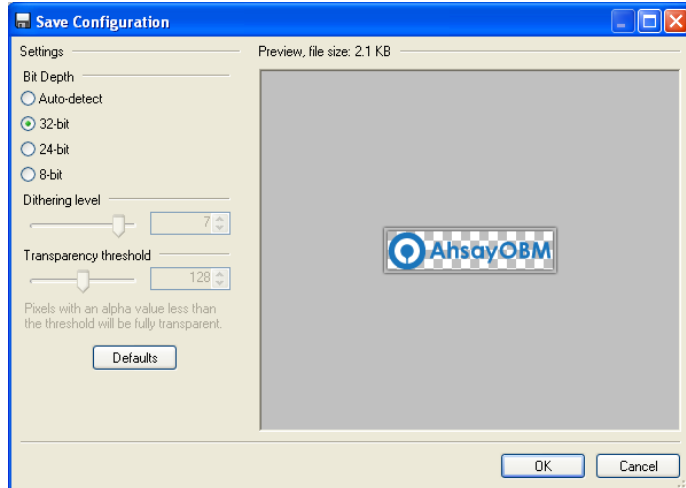
Name	Destination Storage	Info	Quota	Run Direct
SFTP-1	SFTP	Host: ftp-lin.shr-pt.local:22, User: qa_sftp	<input checked="" type="checkbox"/> 10.0 Gbytes	<input type="checkbox"/>

11. Enable the quota and apply the quota.
12. When you create a backup set for a user, you will be able to see the new predefined destination.

Appendix F Image Specifications

You can use common graphics editing tools that able to edit 32bit graphic files to generate these png format files with transparent background.

Example:



For those ico (Windows icon) and icns (Mac icon) files, you can use icon editing tools (available to download from Internet). Most of the icon files have multiple sizes of images. Please refer to the original icon format to replace your product logo into the files.

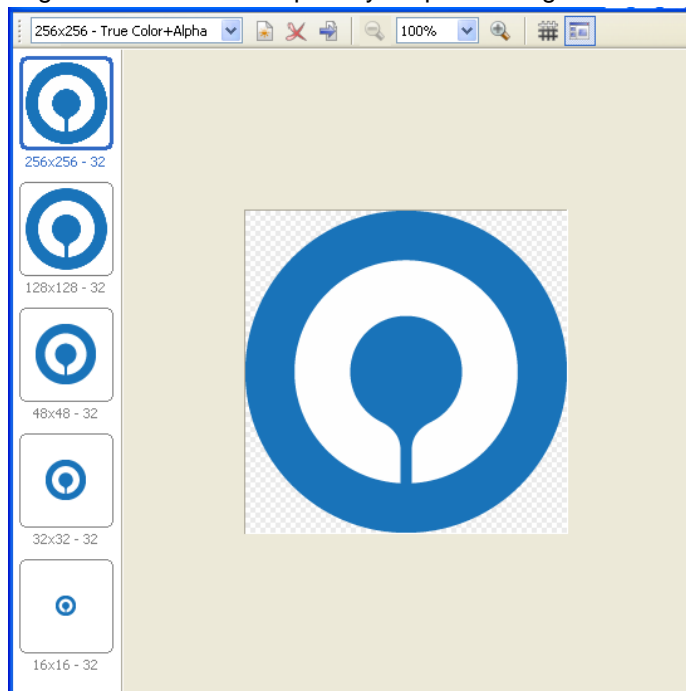






Image specifications for AhsayCBS (web interface, pdf and email report)

File name: ico_40_cbs_logo.png	Format: png
This logo has transparent background (checkered squares) with white text.	Width: 200 px Height: 72 px
	

File name: default.large.gif	Format: gif
This logo has transparent background (checkered squares).	Width: 129 px Height: 40 px
	

File name: ico_24_cbs.png	Format: png
This logo has transparent background (checkered squares).	Width: 24 px Height: 24 px
	

File name: ico_obm_16.png	Format: png
This logo has transparent background (checkered squares).	Width: 18 px Height: 18 px
	


File name: ico_acb_16.png	Format: png
This logo has transparent background (checkered squares).	Width: 18 px
	Height: 18 px
	

Image specifications for AhsayCBS (Installation graphics)

Images for Windows (Installation graphics)

File name: aboutBG.bmp	Format: Bitmap Width: 164 px Height: 337 px
 <p>(The size of this graphic is reduced to fit into this document.)</p>	

File name: desktop.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

File name: installer.ico

This logo has transparent background (checkered squares).

Format: Windows Icon

Width: 256,128,48,32,16px

Height: 256,128,48,32,16px

(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

File name: obsr-splash.bmp

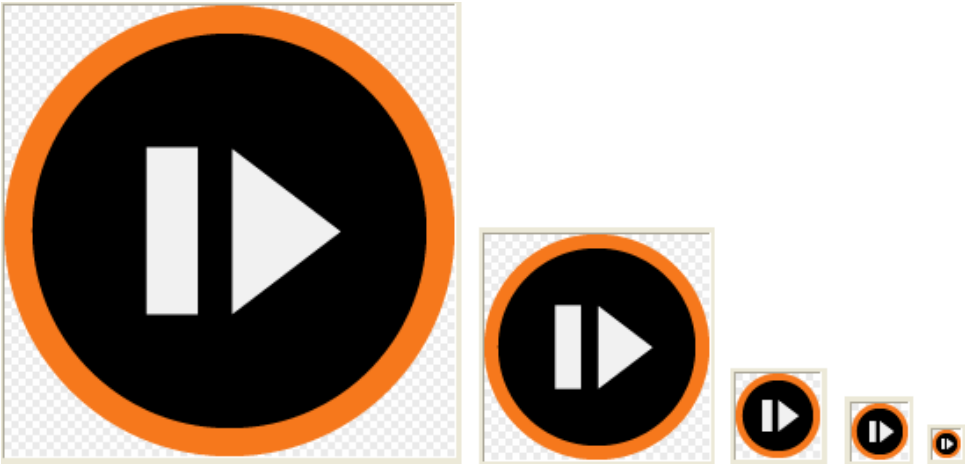
Format: Bitmap

Width: 340 px

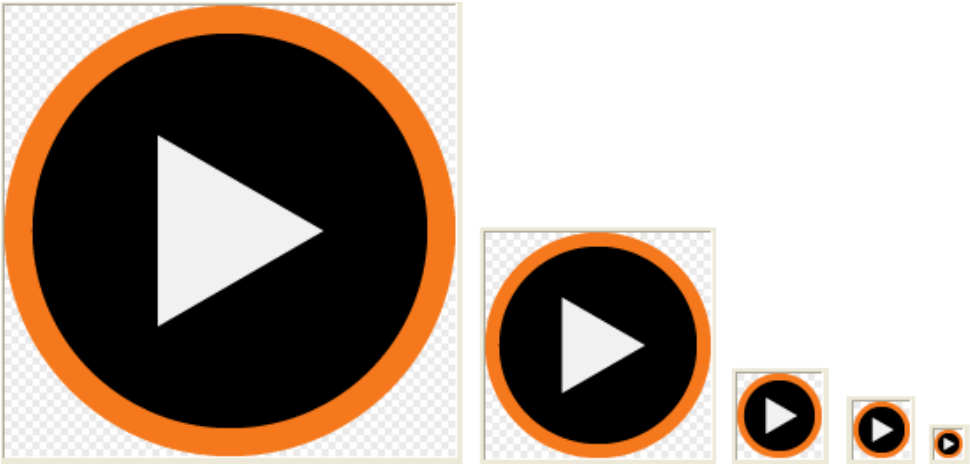
Height: 240 px



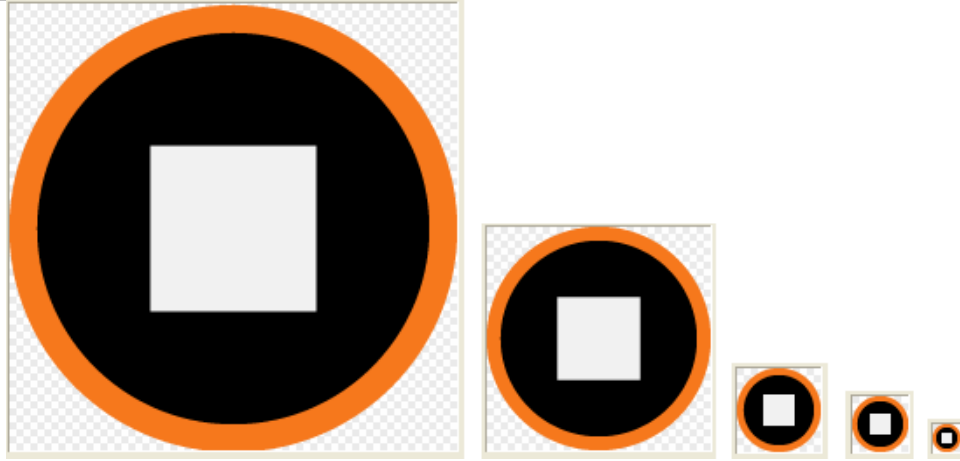
(The size of this graphic is reduced to fit into this document.)

File name: restart.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)
 <p>(The sizes of these logos are reduced to fit into this document.)</p>	

File name: small.bmp	Format: Bitmap Width: 55 px Height: 58 px
	

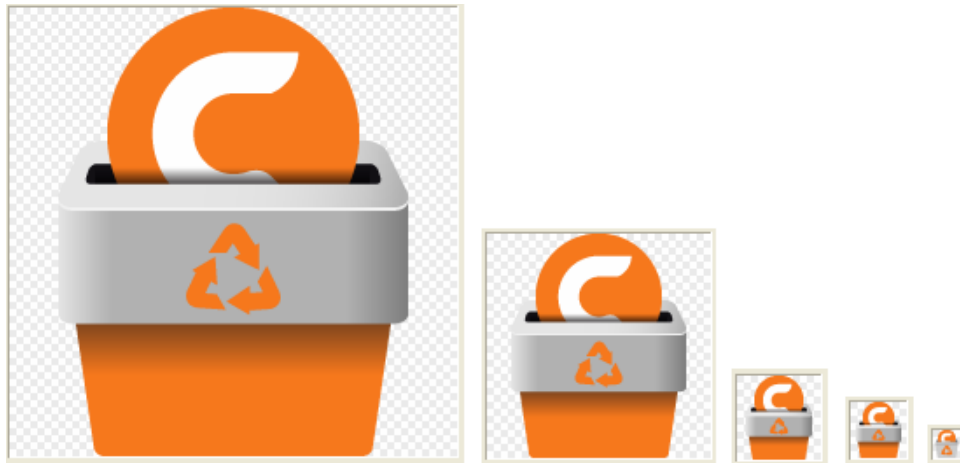
File name: start.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)
 <p>(The sizes of these logos are reduced to fit into this document.)</p>	

File name: stop.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

File name: uninstall.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

File name: webAdmin.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

Images for AhsayUBS (Installation graphics)

File name: favicon.ico	Format: Website Icon Width: 16 px Height: 16 px
This logo has transparent background (checkered squares).	or Width: 32 px Height: 32 px (True color plus alpha channel transparency)
	
File name: footer.png	Format: png Width: 127 px Height: 42 px



File name: header_bg.png

Format: png
Width: 2400 px
Height: 143 px



(The size of this graphic is reduced to fit into this document.)


File name: header_logo.png


Format: png
Width: 524 px
Height: 143 px


This logo has transparent background (checkered squares) with white text.



(The size of this graphic is reduced to fit into this document.)

File name: login_bg.png	Format: png Width: 471 px Height: 340 px
 <p>(The size of this graphic is reduced to fit into this document.)</p>	

File name: login_logo.png	Format: png Width: 353 px Height: 140 px
<p>This logo has transparent background (checkered squares) with white text.</p> 	

File name: splash_320x200.bmp	Format: Bitmap
	Width: 320 px
	Height: 200 px
	

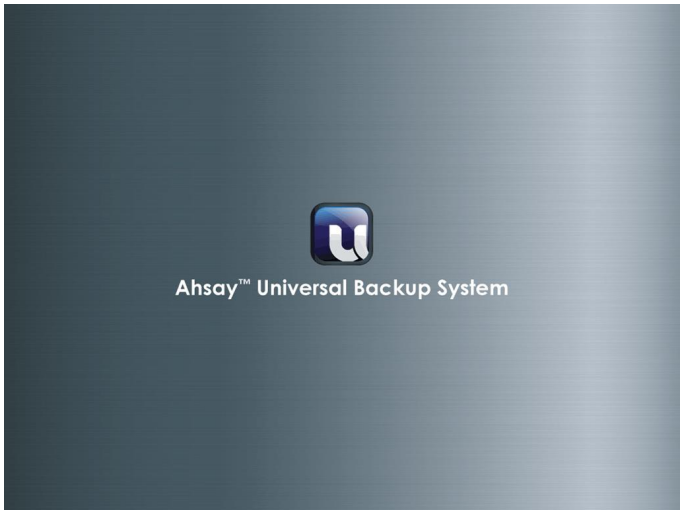



File name: splash_1024x768.bmp	Format: Bitmap
	Width: 1024 px
	Height: 768 px
	
(The size of this graphic is reduced to fit into this document.)	


Image specifications for AhsayOBM (Application graphics)


Images for all platforms


File name: about_logo.png	Format: png Width: 144 px Height: 33 px
This logo has transparent background (checkered squares).	
	


File name: login_bg.png	Format: png Width: 1016 px Height: 734 px
	
(The size of this graphic is reduced to fit into this document.)	


File name: login_logo.png	Format: png Width: 200 px Height: 60 px
This logo has transparent background (checkered squares) with white text.	
	


File name: logo.png	Format: png Width: 32 px Height: 32 px
This logo has transparent background (checkered squares).	
	


File name: main_logo.png	Format: png Width: 148 px Height: 33 px
This logo has transparent background (checkered squares) with white text.	
	

File name: splash.png	Format: png Width: 420 px Height: 240 px
	
(The size of this graphic is reduced to fit into this document.)	


File name: dstn_CBS_24.png	Format: png
This logo has transparent background (checkered squares) with white text.	Width: 24 px Height: 24 px
	

File name: dstn_CBS_32.png	Format: png
This logo has transparent background (checkered squares) with white text.	Width: 32 px Height: 32 px
	


File name: dstn_CBS_48.png	Format: png
This logo has transparent background (checkered squares) with white text.	Width: 48 px Height: 48 px
	


File name: fs16_root_CBS.png	Format: png
This logo has transparent background (checkered squares) with white text.	Width: 16 px Height: 16 px
	


Images for Linux, FreeBSD and Solaris (Application graphics)

File name: desktop.png	Format: png Width: 128 px Height: 128 px
This logo has transparent background (checkered squares).	
	

Images for Synology (Application graphics)



File name: logo_16.png	Format: png Width: 16 px Height: 16 px
This logo has transparent background (checkered squares).	
	

File name: logo_32.png	Format: png Width: 32 px Height: 32 px
This logo has transparent background (checkered squares).	
	

File name: logo_72.png	Format: png Width: 72 px Height: 72 px
This logo has transparent background (checkered squares).	
	

Images for Windows (System tray)

The following icons icon1.ico, icon2.ico, icon3.ico and icon4.ico will be used in the Windows system tray. Please arrange them in an animated sequence. The application will arrange the animation sequence when the backup job is run.

File name: icon1.ico	Format: Windows Icon Width: 16 px Height: 16 px
This logo has transparent background (checkered squares).	
(True color plus alpha channel transparency)	
<div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 20px;">  <p>Original</p> </div> <div style="text-align: center;">  <p>Image enlarged for easy reference</p> </div> </div>	

File name: icon2.ico	Format: Windows Icon Width: 16 px Height: 16 px
This logo has transparent background (checkered squares).	
(True color plus alpha channel transparency)	



Original



Image enlarged for easy reference

File name: icon3.ico

This logo has transparent background (checkered squares).

Format: Windows Icon

Width: 16 px

Height: 16 px

(True color plus alpha channel transparency)



Original



Image enlarged for easy reference

File name: icon4.ico

This logo has transparent background (checkered squares).

Format: Windows Icon

Width: 16 px

Height: 16 px

(True color plus alpha channel transparency)

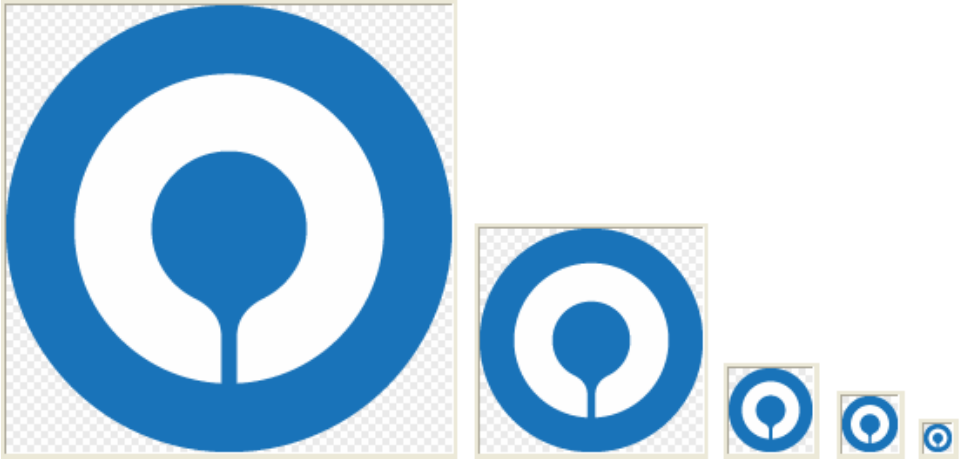


Original



Image enlarged for easy reference

Images for Mac (Application and installation graphics)

File name: desktop.icns	Format: Mac Icon
This logo has transparent background (checkered squares).	Width: 256,128,48,32,16px Height: 256,128,48,32,16px (True color plus alpha channel transparency)
	
(The sizes of these logos are reduced to fit into this document.)	

File name: GenericJavaApp.icns	Format: Mac Icon
This logo has transparent background (checkered squares).	



128x128-32bit



32x32-32bit



16x16-32bit



32x32-8bit



16x16-8bit



32x32-1bit



16x16-1bit

Note: These are default Java application icons, they will be displayed when there are icons missing. This is not directly related the product branding.

File name: installer.icns

This logo has transparent background (checkered squares).

Format: Mac Icon

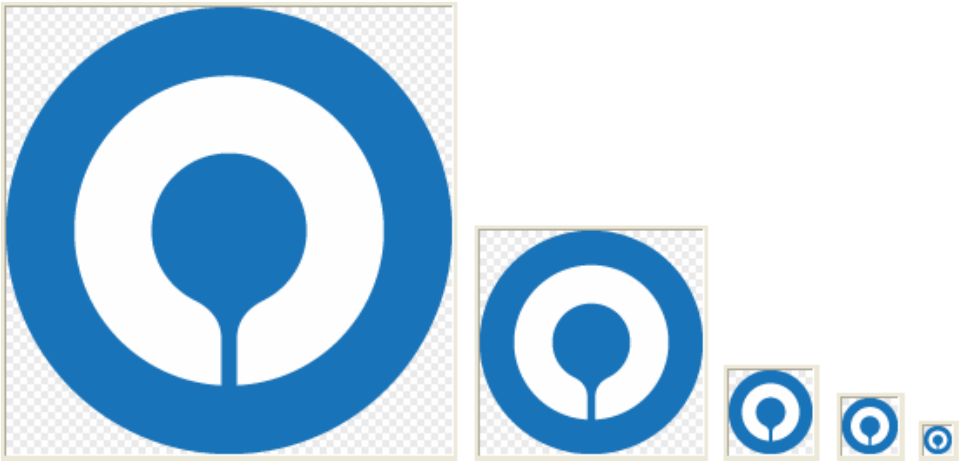
Width: 256,128,48,32,16px

Height: 256,128,48,32,16px

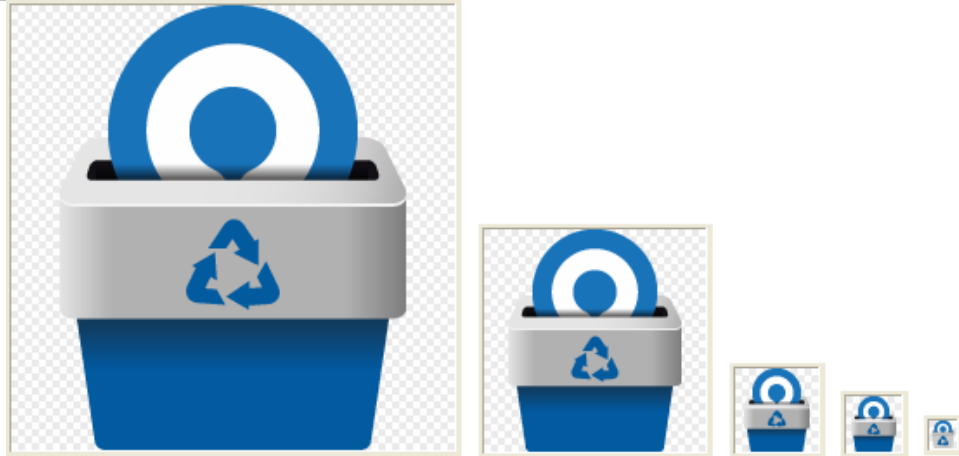
(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

File name: Logo.icns	Format: Mac Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)
	
(The sizes of these logos are reduced to fit into this document.)	

File name: uninstall.icns	Format: Mac Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

File name: OBMLogo.icns

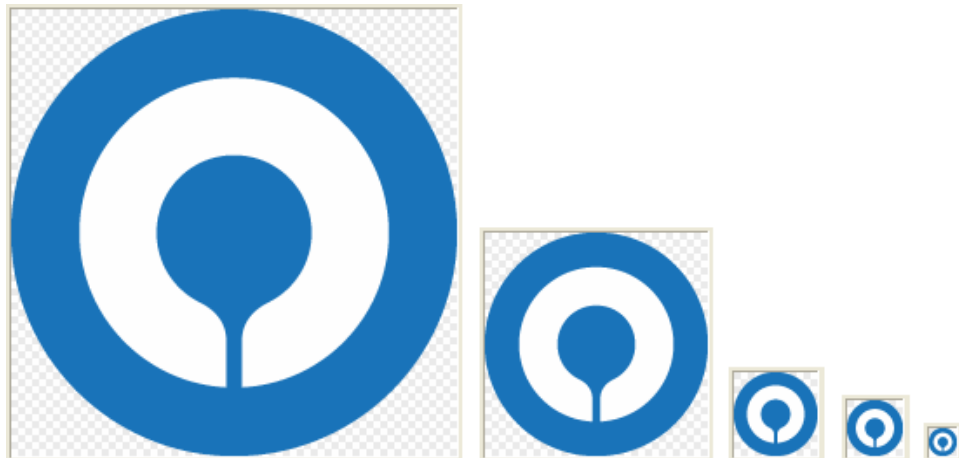
This logo has transparent background (checkered squares).

Format: Mac Icon


Width: 256,128,48,32,16px


Height: 256,128,48,32,16px

(True color plus alpha channel transparency)






(The sizes of these logos are reduced to fit into this document.)

File name: background.jpg	Format: JPEG
	Width: 622 px Height: 420 px
 <p>(The size of this graphic is reduced to fit into this document.)</p>	


File name: logo.png	Format: png
	Width: 128 px Height: 128 px
 <p>(The size of this graphic is reduced to fit into this document.)</p>	

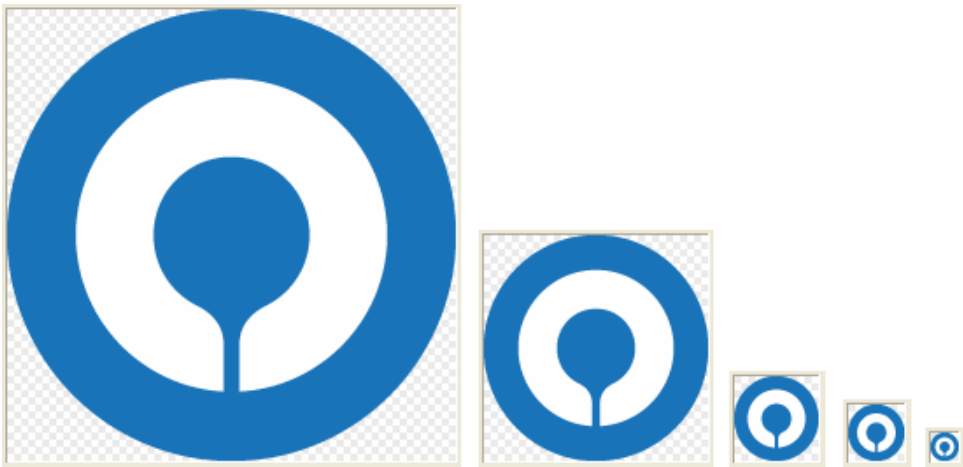
Images for Synology (Installation graphics)

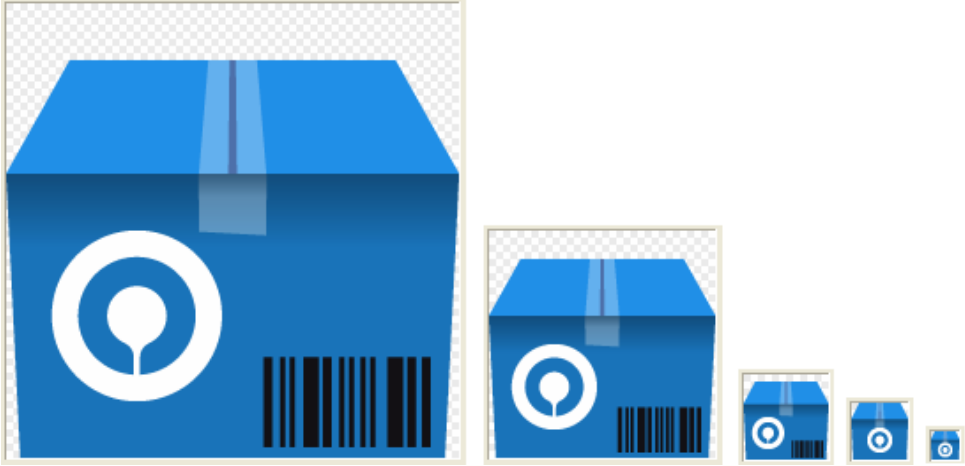
File name: PACKAGE_ICON.PNG	Format: png
This logo has transparent background (checkered squares).	Width: 72 px Height: 72 px
	

File name: PACKAGE_ICON_120.PNG	Format: png Width: 120 px Height: 120 px
<p>This logo has transparent background (checkered squares).</p> 	
File name: PACKAGE_ICON_256.PNG	Format: png Width: 256 px Height: 256 px
<p>This logo has transparent background (checkered squares).</p> 	

Images for Windows (Installation graphics)

File name: aboutBG.bmp	Format: Bitmap Width: 164 px Height: 337 px
	
(The size of this graphic is reduced to fit into this document.)	

File name: desktop.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px (True color plus alpha channel transparency)
	
File name: installer.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	

	(True color plus alpha channel transparency)
 <p>(The sizes of these logos are reduced to fit into this document.)</p>	

File name: small.bmp	Format: Bitmap Width: 55 px Height: 58 px
	


File name: uninstall.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)




(The sizes of these logos are reduced to fit into this document.)


Image specifications for AhsayACB (Application graphics)


Images for all platforms


File name: about_logo.png	Format: png Width: 144 px Height: 33 px
This logo has transparent background (checkered squares).	
	


File name: login_bg.png	Format: png Width: 1016 px Height: 734 px
	
(The size of this logo is reduced to fit into this document.)	


File name: login_logo.png	Format: png Width: 200 px Height: 60 px
This logo has transparent background (checkered squares) with white text.	
	


File name: logo.png	Format: png Width: 32 px Height: 32 px
This logo has transparent background (checkered squares).	
	


File name: main_logo.png	Format: png Width: 148 px Height: 33 px
This logo has transparent background (checkered squares) with white text.	
	

File name: splash.png	Format: png Width: 420 px Height: 240 px
	
(The size of this graphic is reduced to fit into this document.)	

File name: dstn_CBS_24.png	Format: png
This logo has transparent background (checkered squares) with white text.	Width: 24 px Height: 24 px
	



File name: dstn_CBS_32.png	Format: png
This logo has transparent background (checkered squares) with white text.	Width: 32 px Height: 32 px
	



File name: dstn_CBS_48.png	Format: png
This logo has transparent background (checkered squares) with white text.	Width: 48 px Height: 48 px
	



File name: fs16_root_CBS.png	Format: png
This logo has transparent background (checkered squares) with white text.	Width: 16 px Height: 16 px
	



Images for Windows (System tray)

The following icons icon1.ico, icon2.ico, icon3.ico and icon4.ico will be used in the Windows system tray. Please arrange them in an animated sequence. The application will arrange the animation sequence when the backup job is run.

File name: icon1.ico	Format: Windows Icon Width: 16 px Height: 16 px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)
<div></div> <div>Original Image enlarged for easy reference</div>	

File name: icon2.ico	Format: Windows Icon Width: 16 px Height: 16 px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)
<div></div> <div>Original Image enlarged for easy reference</div>	

File name: icon3.ico	Format: Windows Icon Width: 16 px Height: 16 px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Original</p> </div> <div style="text-align: center;">  <p>Image enlarged for easy reference</p> </div> </div>	

File name: icon4.ico	Format: Windows Icon Width: 16 px Height: 16 px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Original</p> </div> <div style="text-align: center;">  <p>Image enlarged for easy reference</p> </div> </div>	

Images for Mac (Application and installation graphics)

File name: desktop.icns	Format: Mac Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

File name: GenericJavaApp.icns	Format: Mac Icon
This logo has transparent background (checkered squares).	



128x128-32bit



32x32-32bit



16x16-32bit



32x32-8bit



16x16-8bit




32x32-1bit



16x16-1bit

Note: These are default Java application icons, they will be displayed when there are icons missing. This is not directly related the product branding.

File name: installer.icns	Format: Mac Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)
 <p>(The sizes of these logos are reduced to fit into this document.)</p>	

File name: Logo.icns	Format: Mac Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

File name: uninstall.icns

This logo has transparent background (checkered squares).

Format: Mac Icon


Width: 256,128,48,32,16px

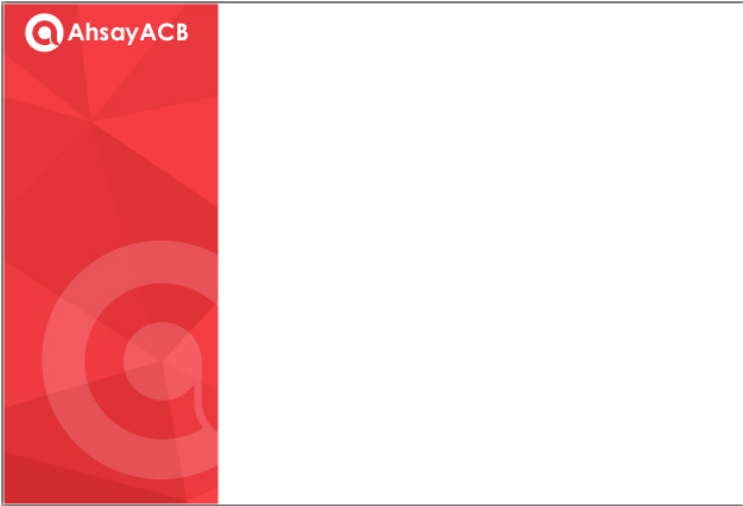
Height: 256,128,48,32,16px


(True color plus alpha channel transparency)




(The sizes of these logos are reduced to fit into this document.)

File name: ACBLogo.icns	Format: Mac Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	
	
(The sizes of these logos are reduced to fit into this document.)	

File name: background.jpg	Format: JPEG Width: 622 px Height: 420 px
	
(The size of this graphic is reduced to fit into this document.)	

File name: logo.png	Format: png
	Width: 128 px
	Height: 128 px
	
(The size of this graphic is reduced to fit into this document.)	

Images for Windows (Installation graphics)

File name: aboutBG.bmp	Format: Bitmap
	Width: 164 px
	Height: 337 px
	
(The size of this graphic is reduced to fit into this document.)	

File name: desktop.ico	Format: Windows Icon
This logo has transparent background (checkered squares).	Width: 256,128,48,32,16px
	Height: 256,128,48,32,16px
(True color plus alpha channel transparency)	



(The sizes of these logos are reduced to fit into this document.)

File name: installer.ico

This logo has transparent background (checkered squares).

Format: Windows Icon

Width: 256,128,48,32,16px

Height: 256,128,48,32,16px

(True color plus alpha channel transparency)



(The sizes of these logos are reduced to fit into this document.)

File name: small.bmp

Format: Bitmap

Width: 55 px

Height: 58 px



File name: uninstall.ico

This logo has transparent background (checkered squares).

Format: Windows Icon

Width: 256,128,48,32,16px

Height: 256,128,48,32,16px


(True color plus alpha channel transparency)




(The sizes of these logos are reduced to fit into this document.)

Image specifications for AhsayOBC (Installation graphics)

Images for Windows

File name: acb-splash.bmp	Format: Bitmap Width: 340 px Height: 240 px
 The splash screen features a red background with a geometric, low-poly pattern. In the center, there is a white square containing a red stylized 'Q' logo, followed by the text 'AhsayACB' in white.	

File name: installer.ico	Format: Windows Icon Width: 256,128,48,32,16px Height: 256,128,48,32,16px
This logo has transparent background (checkered squares).	(True color plus alpha channel transparency)
 The image shows a series of five icons representing the installer. The largest icon on the left is a square with a light gray background, featuring a stylized 'Q' logo (blue and red) and a barcode. To its right are four smaller versions of the same icon, each with a different size, arranged in a row. The background of the icons is a checkered pattern, indicating transparency.	
(The sizes of these logos are reduced to fit into this document.)	

File name: obc-background.bmp

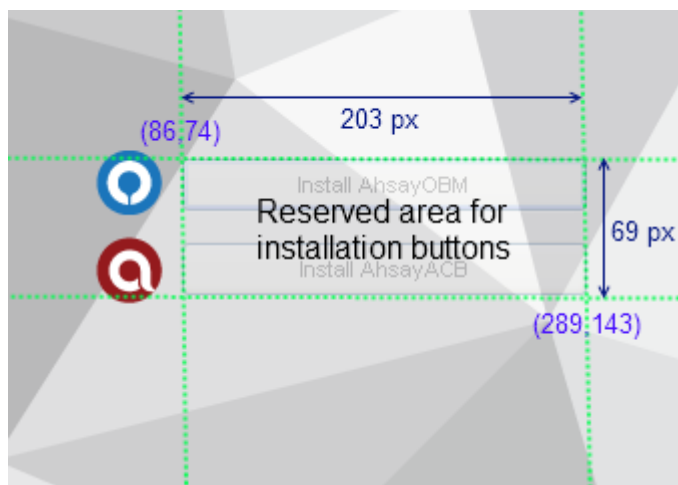
Format: Bitmap


Width: 340 px


Height: 240 px



The central area inside the green dotted lines is reserved for the OBM/ACB installation buttons.



File name: obc-splash.bmp	Format: Bitmap
	Width: 340 px
	Height: 240 px
	

File name: obm-splash.bmp	Format: Bitmap
	Width: 340 px
	Height: 240 px
	

Appendix G Comparison on Different Replication Setup Environments

Here is a comparison table of the setup concerns on different replication environment.

	Ahsay CBS (Physical machine/Cloud)	Ahsay CBS (Existing VM)	Cloud (Storage)	FTP/ SFTP	Ahsay CBS (Physical machine/Cloud)	Ahsay CBS (Existing VM)	Local FTP/ SFTP	Mapped Drive	Local/ Removable Drive
Type of connection	Internet				LAN				N/A
	This is the type of connection with the Backup Server, for Internet connection, you may aware on the download speed which may affect the restore performance. N/A refers to a direct connection with the Backup Server and the replication storage is not located on the same disk of the user home.								
Cost	High	Medium	Medium*	Low	High	Medium	Low	Low	Low
	The cost is measured in terms of setup, hosting, storage media type and maintenance. * The cost would be affected if the cloud storage is charged base on bandwidth or amount of access.								
Replication Speed	Medium	Medium	Medium	Medium	Fast	Fast	Fast	Fast	Fast
	The replication speed over the Internet would mainly depend on the upload bandwidth. The replication speed is similar as file copying between 2 devices and the number of backup set to replicate. If fast replication is required, you can consider using the multiple threads replication (v7.7 onwards)								
Recovery Speed	Fast	Fast	Slow	Slow	Fast	Fast	Fast	Fast	Fast
	This is measured in terms of the Backup Server downtime. The bottleneck is mainly on the Internet bandwidth.								
Switch to Backup Server	Yes	Yes	No	No	Yes	Yes	No	No	No
Time to switch over by DNS	Slow **	Slow **	N/A	N/A	Fast	Fast	N/A	N/A	N/A
	** The speed would depend on the DNS propagation time. N/A refers to the device has no such capability and not applicable for the DNS switch over.								
Time to switch over by IP address	Fast	Fast	N/A	N/A	Fast	Fast	N/A	N/A	N/A
	Switch the IP address of the Replication Server to the IP address of the Backup Server, provided that the Backup Server is down and the IP address will not be used on the Backup Server again. N/A refers to the device has no such capability and not applicable for the IP switch over.								
Offsite replication	Yes	Yes	Yes	Yes	No	No	No	No	No
Replication snapshot	By Ahsay CBS	By Ahsay CBS	Depends ***	No	By Ahsay CBS	By Ahsay CBS	No	No	No
	*** Depends on the cloud service provider/setup.								

Appendix H System Job

Here is a summary of the system jobs on the AhsayCBS. For the daily job, it is scheduled at 06:00, while others will be performed hourly and quarter-hourly.

Quarter-hourly Job

Job Name	Description	Email
Low Disk Space Alert	When the disk space of the user home or system home is over 80%, email will be sent to administrator. Once the alert email is sent, email will not be sent within the next hour.	✓
Inactive Backup Set Report	Email users when backup set has not been run for a number of days. (The number of days can be set in policy group.)	✓
Settings Change Report	When user's profile or backup set settings is changed, Email will be sent to user.	✓
Restore Job Report	Send restore job report to user.	✓
Backup Job Report	Send backup job report to user.	✓
Remove Deleted Backup Set	This job scans removed backup sets from the storage.	x

Hourly Job

Job Name	Description	Email
Missed Backup Report	Email will be sent if scheduled backup job has not been started after 6 hours.	✓
Remove Migrated v6 Data	(Version 7.7 or later) When v6 backup data has completely migrated to v7 format, this job will remove the old v6 backup data.	x
License Check	License validation check.	x

Daily Job

Job Name	Description	Email
Backup Quota Reminder Report	It will send report to user when the backup quota is over 80% or backup quota is full.	✓
Trial User Reminder Job	It will send report to trial users when trial users are going to expire or to those expired trial users.	✓
Low Destination Space Reminder	It will send disk space reminder email to administrator. It monitors the local and cloud storages such as Amazon Cloud Drive, Google Drive, OneDrive and OneDrive for Business.	✓

Configuration Archival	Perform AhsayCBS system configuration, user profile, and runtime settings to our cloud.	x
Remove Trial User	Expired trial users will be removed by this job.	x
Logs Removal	This job removes expired log entries such as backup error, backup job, CDP backup job, replication log, advertisement log and system logs etc.	x
Meter license usage	Upload meter license usage to our cloud.	x

Appendix I Daily User Report

If the user group your account belongs to has the Daily User Report selected in the Policy Group setting, you will receive a daily user report generated by the CBS system.


The daily user report is an interactive report to provide you with detailed information activities, statistics, problems or issues that your account is associated with.

There are two major types of reports you can find from the email, the **Backup/Restore Report** and the **Daily User Report**.

To access the Backup/Restore report

➤ Download individual Backup or Restore report

1. The content in the email shows a list of Backup and Restore jobs performed associated with your user. Simply click on the **Download** link in the individual backup or restore job item as highlighted in the screen shot below.



Dear steven.tse@ahsay.com,

Please download the attachment "DailyUserReport.html" to view your consolidated Daily User Report for 11/25/2016. **95 error(s)** and **89 issue(s)** were found by the system. Please review and fix them as soon as possible.

Backup Job

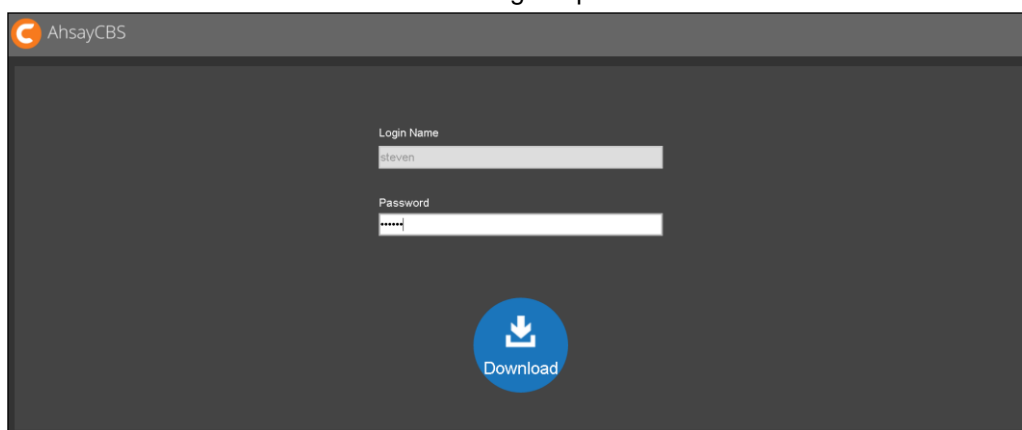
User	Backup Set	Backup Job	Report
steven	K Drive Backup (1479792751514)	2016-11-25-12-45-00	Download
steven	K Drive Backup (1479792751514)	2016-11-25-18-15-00	Download

Restore Job

User	Backup Set	Backup Job	Report
steven	K Drive Backup (1479792751514)	2016-11-24-19-28-08	Download

Sincerely
Ahsay Support Team

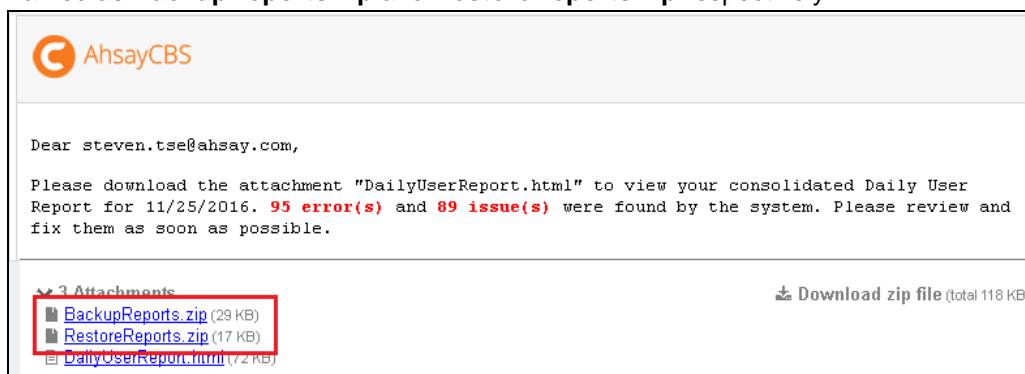
2. You will be prompted to enter the password of your backup user account as shown below. Click on the **Download** button after entering the password.



3. The Backup or Restore report in .zip format will be download.

➤ Download Backup and Restore reports at once

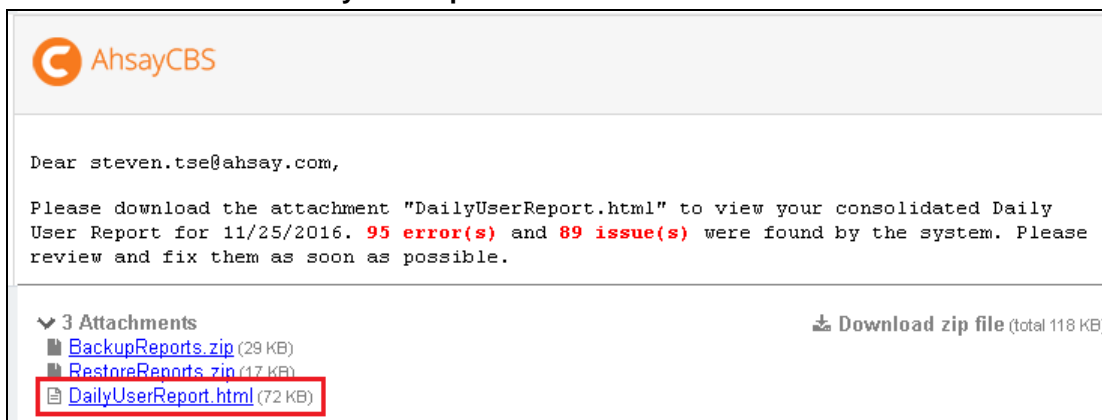
1. All backup reports and restore reports are grouped separate **.zip** attachments and are named as **BackupReports.zip** and **RestoreReports.zip** respectively.



2. Unzip the downloaded file and you will find all the backup or restore reports.

To access the Consolidated Report

1. Click on the attachment **DailyUserReport.html** from the email to download the file.



2. Launch the file with your Internet browser and you will see a screen similar to this.

Daily User report (steven.tse@ahsay.com)

Generated at : Friday, November 25, 2016 19:00:04 CST

PROBLEMS ISSUES ACTIVITIES STATISTICS

System Backup Restore Replication Redirection

No.	Events	Start Time	End Time	Total No. of Occurrence
1	MissedBackup	2016-11-24-09-33-00	2016-11-25-09-33-00	16
2	UserAuthFailed	11/24/2016 19:06:48	11/25/2016 18:37:05	63

About the Daily User Report

The daily user report has 4 major sections which are **PROBLEMS**, **ISSUES**, **ACTIVITIES** and **STATISTICS**.



All unsuccessful activities including system jobs, backup jobs, restore, replication and redirection are recorded under the PROBLEMS section. There are 5 tabs under this category.

➤ System

This page shows the consolidated data for system job errors with the following details. All same type of system job error will be grouped as one entry.

Daily User report (steven.tse@ahsay.com)

Generated at : Friday, November 25, 2016 19:00:04 CST

PROBLEMS ISSUES ACTIVITIES STATISTICS

System Backup Restore Replication Redirection

No.	Events	Start Time	End Time	Total No. of Occurrence
1	MissedBackup	2016-11-24-09-33-00	2016-11-25-09-33-00	16
2	UserAuthFailed	11/24/2016 19:06:48	11/25/2016 18:37:05	63

No.	Sequential number of report item
Events	Type of system job error
Start Time	Start time of the first occurrence of the particular type of system job error
End Time	End time of the last occurrence of the particular type of system job error
Total No. of Occurrence	Number of occurrence of the particular type of system job error

➤ Backup

This page shows all the unsuccessful backup jobs with the following details.

Daily User report (steven.tse@ahsay.com)							
Generated at : Friday, November 25, 2016 19:00:04 CST							
PROBLEMS ISSUES ACTIVITIES STATISTICS							
System Backup Restore Replication Redirection							
User	Backup Sets	Start Time	End Time	Job Status	Jobs@Destinations	Total No. of Errors	Last Successful Backup
steven2	Backup Set Name (DAG)	11/25/2016 04:00:47	11/25/2016 04:00:47	Missed Backup	2016-11-24-22-00-00@[Pre-v7]	1	2016-11-10-22-00-00
steven2	default-backup-set-name-1	11/25/2016 02:00:24	11/25/2016 02:00:24	Missed Backup	2016-11-24-20-00-00@[Pre-v7]	1	--
steven2	default-backup-set-name-3	11/25/2016 05:00:58	11/25/2016 05:00:58	Missed Backup	2016-11-24-23-00-00@[Pre-v7]	1	2016-07-29-23-00-00

User	Name of the backup user
Backup Sets	Name of the failed backup set
Start Time	Start time of the failed backup job (in backup server's time zone)
End Time	End time of the failed backup job (in backup server's time zone)
Job Status	Status of the failed backup job, e.g. Missed Backup
Job@Destinations	Backup time in client time zone
Total No. of Errors	Total number of backup error for the particular backup set
Last Successful Backup	Time of the last successful backup job for the particular backup set

➤ Restore

This page shows all the unsuccessful restore jobs with the following details.

Daily User report (steven.tse@ahsay.com)							
Generated at : Friday, November 25, 2016 19:00:04 CST							
PROBLEMS ISSUES ACTIVITIES STATISTICS							
System Backup Restore Replication Redirection							
User	Backup Sets	Start Time	End Time	Job Status	Jobs@Destinations	Total No. of Errors	
steven	K Drive Backup	11/24/2016 19:28:08	11/24/2016 19:28:22	User interrupted	2016-11-24-19-28-08@GoogleDrive-1	1	

User	Name of the backup user
Backup Sets	Name of the failed backup set
Start Time	Start time of the failed restore job (in backup server's time zone)

End Time	End time of the failed restore job (in backup server's time zone)
Job Status	Status of the failed restore job, e.g. User interrupted
Job@Destinations	Restore time in client backup agent's time zone
Total No. of Errors	Total number of restore error for the particular backup set

➤ Replication

This page shows all the unsuccessful replication jobs with the following details.

[WEB VIEW](#)
[PRINT VIEW](#)

Daily User report (steven.tse@ahsay.com)

Generated at : Tue, 12 Jul 2016 01:00:01 CST

PROBLEMS
ISSUES
ACTIVITIES
STATISTICS

System
Backup
Restore
Replication
Redirection

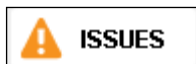
User	Backup Sets	Timestamp	Type	Messages
steven	Backup Set Name	2016-07-11 01:00:06	ReplicateFileError	[Resync] Top dir:D:\AhsayCBS\user\steven, backup set: 1465540337727, null
steven	Backup Set Name	2016-07-11 01:00:16	ReplicateFileError	[Resync] Top dir:D:\AhsayCBS\user\steven, backup set: 1465540337727, null
steven	Backup Set Name	2016-07-11 01:00:26	ReplicateFileError	[Resync] Top dir:D:\AhsayCBS\user\steven, backup set: 1465540337727, null

User	Name of the backup user
Backup Sets	Name of the backup set failed for replication
Timestamp	Recorded time of the replication error
Type	Type of the replication error
Messages	Error message showing details of the replication error

➤ Redirection

This page shows all the unsuccessful redirection jobs with the following details.

Timestamp	Recorded time of the redirection error
Events	Type of the redirection error
Users	Name of user failed for the redirection job
Total No. of Errors	Total number of redirection error for the particular user



This section shows issues in regard to system jobs, backup user account and backup sets that backup user should be aware of. There are 3 tabs under this category.

➤ System / Security

This page shows the consolidated data for system or security issues with the following details.

WEB VIEW

PRINT VIEW

Daily User report (steven.tse@ahsay.com)

Generated at : Friday, November 25, 2016 19:00:04 CST

PROBLEMS

ISSUES

ACTIVITIES

STATISTICS

System / Security

Users

Backup Sets

Events	Users	Start Time	End Time	No. of Occurrence	Remote IP Address	User Agent
UserAuthFailed	steven	11/24/2016 19:06:48	11/25/2016 18:37:05	63	192.168.7.105	OBM

Event	Type of system / security issues
Users	Name of the backup user for the particular type of system/security issue
Start Time	Start time of the first occurrence of the particular type of system/security issue
End Time	End time of the last occurrence of the particular type of system/security issue
No. of Occurrence	Number of occurrence of the particular type of system/security of a backup user
Remote IP Address	IP address where Client Agent Application is installed
User Agent	Type of the Client Agent Application (AhsayOBM/AhsayACB)

➤ Users

This page shows a list of backup users whose account's storage quota is 90% or above full.

WEB VIEW

PRINT VIEW

Daily User report (steven.tse@ahsay.com)

Generated at : Wednesday, November 23, 2016 19:00:05 CST

PROBLEMS

ISSUES

ACTIVITIES

STATISTICS

System / Security

Users

Backup Sets

Events	Type	User	Used/Quota (%)	Last Login	Registration Date	Last Backup	Days left
Used Quota > 90%[Simple Quota]	PAID	steven	985.02M/1G(96%)	11/23/2016 18:30:45	11/22/2016 12:17:44	11/23/2016 18:15:10	28

Event	Type of the issue
Type	User's subscription status, whether it is a paid or trial user
User	Name of the backup user

Used/Quota (%)	Storage used / Storage Quota (Utilization rate)
Last Login	Last login time of user
Registration Date	Backup account's registration date and time
Last Backup	Date and time of the last backup job performed
Days Left	<ul style="list-style-type: none"> ➤ Trial account – number of days left before the trial account expires ➤ Paid account – number of days left before the account suspension date set by the system administrator

➤ Backup Sets

This page shows a list of missed scheduled backup and backup sets that have not been backed up for 14 days or more.

<div> WEB VIEW PRINT VIEW </div> <h2>Daily User report (steven.tse@ahsay.com)</h2> <p>Generated at : Friday, November 25, 2016 19:00:04 CST</p> <div> PROBLEMS ISSUES ACTIVITIES STATISTICS </div> <div> System / Security Users Backup Sets </div> <table> <tr> <th>Events</th><th>Users</th><th>Backup Set</th><th>Destinations</th><th>Creation Date</th><th>Last Backup Job</th><th>Last Successful Backup</th></tr> <tr> <td>Inactive > 14 days</td><td>steven2</td><td>MS SQL Server Backup Set Name</td><td>--</td><td>--</td><td>--</td><td>--</td></tr> <tr> <td>Inactive > 14 days</td><td>steven2</td><td>Cloud Testing</td><td>--</td><td>--</td><td>--</td><td>--</td></tr> <tr> <td>Inactive > 14 days</td><td>steven2</td><td>testing2</td><td>--</td><td>--</td><td>101 Days</td><td>--</td></tr> </table>							Events	Users	Backup Set	Destinations	Creation Date	Last Backup Job	Last Successful Backup	Inactive > 14 days	steven2	MS SQL Server Backup Set Name	--	--	--	--	Inactive > 14 days	steven2	Cloud Testing	--	--	--	--	Inactive > 14 days	steven2	testing2	--	--	101 Days	--
Events	Users	Backup Set	Destinations	Creation Date	Last Backup Job	Last Successful Backup																												
Inactive > 14 days	steven2	MS SQL Server Backup Set Name	--	--	--	--																												
Inactive > 14 days	steven2	Cloud Testing	--	--	--	--																												
Inactive > 14 days	steven2	testing2	--	--	101 Days	--																												

Events	Type of the issue
Users	Name of the backup user
Backup Set	Name of the backup set
Destination	Location of the backup destination
Creation Date	Date and time when the backup set was created
Last Backup Job	Number of day when a backup job was last performed
Last Successful Backup	Time of the last successful backup job for the particular backup set



This section shows activities of all backup and restore jobs, both successful and unsuccessful ones, as well as all setting changes made. There are 3 tabs under this category.

➤ Backup Jobs

This page shows a list of all backup jobs activities.

Daily User report (steven.tse@ahsay.com)								
Generated at : Friday, November 25, 2016 19:00:04 CST								
<div>PROBLEMS ISSUES ACTIVITIES STATISTICS</div>								
<div>Backup Jobs Restore Jobs Setting Changes</div>								
Users	Backup Set	Destinations	IP Address	Start Time	End Time	Backup Duration	Backup Status	Backup Size *
steven	K Drive Backup	GoogleDrive-1	192.168.7.105	11/25/2016 12:45:07	11/25/2016 12:46:21	1 min(s) 14 sec(s)	OK	8 [33.34M/39.79M]
steven	K Drive Backup	GoogleDrive-1	192.168.7.105	11/25/2016 18:15:06	11/25/2016 18:18:10	3 min(s) 4 sec(s)	OK	5 [18.9M/21.19M]
steven2	Backup Set Name (DAG)	[Pre-v7]		11/25/2016 04:00:47	11/25/2016 04:00:47	0 sec(s)	Missed Backup	0 [0/0]

Users	Name of the backup user
Backup Set	Name of the backup set
Destinations	Location of the backup destination
IP Address	IP address where User Agent Application is installed
Backup Duration	Start time / End time of the backup and duration of the backup
Backup Status	Status of the backup job
Backup Size	No. of files [Compressed size / Uncompressed size]

➤ Restore Jobs

This page shows a list of all restore jobs activities.

Daily User report (steven.tse@ahsay.com)								
Generated at : Friday, November 25, 2016 19:00:04 CST								
<div>PROBLEMS ISSUES ACTIVITIES STATISTICS</div>								
<div>Backup Jobs Restore Jobs Setting Changes</div>								
Users	Backup Set	Destinations	IP Address	Start Time	End Time	Restore Duration	Restore Status	Restore Size*
steven	K Drive Backup	GoogleDrive-1	192.168.7.105	11/24/2016 19:28:08	11/24/2016 19:28:22	14 sec(s)	User interrupted	32(52.2M)
steven	K Drive Backup	GoogleDrive-1	192.168.7.105	11/24/2016 17:36:19	11/24/2016 17:36:35	16 sec(s)	OK	14(34.73M)

* Unit =No. of files (Downloaded size)

Users	Name of the backup user
Backup Set	Name of the backup set

Destinations	Location of the restore destination
IP Address	IP address where User Agent Application is installed
Start Time	Start time of the restore job
End Time	End time of the restore job
Restore Duration	Duration of the restore job
Restore Status	Status of the restore job
Restore Size	Number of files restored (Downloaded size)

➤ Setting Changes

This page shows a list of the settings changed by backup users.

<div> WEB VIEW PRINT VIEW </div> <h2>Daily User report (steven.tse@ahsay.com)</h2> <p>Generated at : Thursday, November 24, 2016 19:00:04 CST</p> <div> PROBLEMS ISSUES ACTIVITIES STATISTICS </div> <div> Backup Jobs Restore Jobs Setting Changes </div> <table> <tr> <th>Users</th><th>Field</th><th>Old Value</th><th>New Value</th><th>Time of Changes</th><th>IP Address</th></tr> <tr> <td>steven</td><td>Contacts</td><td>"[Name: Steven, Email: steven.tse@ahsay.com, Company: , Address: , Website: , Phone: , Phone: "</td><td>"[Name: Steven, Email: steven.tse@ahsay.com, Company: , Address: abcabc, Website: , Phone: , Phone: "</td><td>11/24/2016 16:34:00</td><td>192.168.22.40</td></tr> <tr> <td>steven</td><td>Quota</td><td>"1073741824"</td><td>"536870912000"</td><td>11/24/2016 16:34:00</td><td>192.168.22.40</td></tr> <tr> <td>steven</td><td>[Add-on Modules] Microsoft Exchange Mailbox Quota</td><td>"10"</td><td>"50"</td><td>11/24/2016 16:34:00</td><td>192.168.22.40</td></tr> </table>						Users	Field	Old Value	New Value	Time of Changes	IP Address	steven	Contacts	"[Name: Steven, Email: steven.tse@ahsay.com, Company: , Address: , Website: , Phone: , Phone: "	"[Name: Steven, Email: steven.tse@ahsay.com, Company: , Address: abcabc, Website: , Phone: , Phone: "	11/24/2016 16:34:00	192.168.22.40	steven	Quota	"1073741824"	"536870912000"	11/24/2016 16:34:00	192.168.22.40	steven	[Add-on Modules] Microsoft Exchange Mailbox Quota	"10"	"50"	11/24/2016 16:34:00	192.168.22.40
Users	Field	Old Value	New Value	Time of Changes	IP Address																								
steven	Contacts	"[Name: Steven, Email: steven.tse@ahsay.com, Company: , Address: , Website: , Phone: , Phone: "	"[Name: Steven, Email: steven.tse@ahsay.com, Company: , Address: abcabc, Website: , Phone: , Phone: "	11/24/2016 16:34:00	192.168.22.40																								
steven	Quota	"1073741824"	"536870912000"	11/24/2016 16:34:00	192.168.22.40																								
steven	[Add-on Modules] Microsoft Exchange Mailbox Quota	"10"	"50"	11/24/2016 16:34:00	192.168.22.40																								

Users	Name of the backup user
Field	The field that has been changed
Old Value	Old Value before the change
New Value	New Value after the change
Time of Changes	Time of the changes made
IP Address	IP Address of the machine which initiated the changes



This section shows statistics data of backup users, data transfer and disk storage usage.

➤ Users

This page shows a list of statistics data regarding the backup user account.

Daily User report (steven.tse@ahsay.com)										
Generated at : Thursday, November 24, 2016 19:00:04 CST										
<div> PROBLEMS ISSUES ACTIVITIES STATISTICS </div>										
<div> Users Data Transfer Disk Storage Usage </div>										
Username	Alias	Registration Date	Last Backup	Last Login	Data Size*	Retention Size*	Yesterday's Upload	Standard Quota	Total Backup (No. of Files/Size)**	Total Restore (No. of Files/Size)**
steven	Steven (K drive)	11/22/2016 12:17:44	--	11/24/2016 18:30:20	940.42M / 1.08G	92.71M / 112.4M	1.02M	500G	2096 [1.01G / 1.19G]	1982 [963.02M / 1.11G]
steven2	steven OBM	06/07/2016 13:32:20	12 Day(s)	11/11/2016 22:15:39	7.31G / 14.52G	60.33M / 481.85M	0	100G	8760 [7.45G / 15.45G]	1585 [5.18G / 9.4G]
steventrial	--	11/22/2016 18:59:38	--	--	0 / 0	0 / 0	0	50M	0 [0 / 0]	0 [0 / 0]
testing	--	11/24/2016 10:53:39	--	--	0 / 0	0 / 0	0	500G	0 [0 / 0]	0 [0 / 0]

* Unit = Compressed / Uncompressed
 ** Unit =No. of files [Compressed size / Uncompressed size]

Users	Name of the backup user
Alias	Another name of the backup user
Registration Date	Date and time when the backup account was registered
Last Backup	Number of day when a backup job was last performed with the particular user account
Last Login	Date and time when user logged in to the particular account
Data Size	Total size of backup data (Compressed size/Uncompressed size)
Retention Size	Total size of data in retention area (Compressed size/Uncompressed size)
Yesterday's Upload	Total size of backup uploaded by the particular backup user yesterday
Standard Quota	Storage quota set for the particular backup user
Total Backup (No. of Files/Size)	Total backup performed by this user [No. of files [Compressed size / Uncompressed size]
Total Restore (No. of Files/Size)	Total restore performed by this user [No. of files [Compressed size / Uncompressed size]

➤ Data Transfer

This page shows a list of statistics data regarding data transfer for backup jobs and restore jobs.

WEB VIEW

PRINT VIEW

Daily User report (steven.tse@ahsay.com)

Generated at : Thursday, November 24, 2016 19:00:04 CST

PROBLEMS

ISSUES

ACTIVITIES

STATISTICS

Users

Data Transfer

Disk Storage Usage

Backup Jobs

User	Backup Set	Destinations	IP Address	Start Time	End Time	Backup Duration	Backup Status	Backup Size*
steven	K Drive Backup	GoogleDrive-1	192.168.7.105	11/24/2016 10:25:46	11/24/2016 10:24:33	1 min(s) 13 sec(s)	OK	6 [23.51M / 28.53M]
steven	K Drive Backup	GoogleDrive-1	192.168.7.105	11/24/2016 12:46:33	11/24/2016 12:45:07	1 min(s) 26 sec(s)	OK	5 [12.29M / 14.92M]
steven	K Drive Backup	GoogleDrive-1	192.168.7.105	11/24/2016 18:17:56	11/24/2016 18:15:06	2 min(s) 50 sec(s)	OK	7 [12.31M / 14.98M]
steven2	File backup testing	[Pre-v7]	--	11/24/2016 15:00:03	11/24/2016 15:00:03	0 sec(s)	Missed Backup	0 [0 / 0]

Restore Jobs

User	Backup Set	Destinations	IP Address	Start Time	End Time	Restore Duration	Restore Status	Restore Size**
steven	K Drive Backup	GoogleDrive-1	192.168.7.105	11/24/2016 17:36:14	11/24/2016 17:36:36	22 sec(s)	OK	14 (34.73M)

* Unit = No. of files [Compressed size / Uncompressed size]

** Unit =No. of files (Downloaded size)

Users	Name of the backup user
Backup Set	Name of the backup set
Destinations	Backup Destination of the particular backup set
IP Address	IP address of the client backup agent running the backup / restore
Start Time	Start time of the particular backup / restore
End Time	End time of the particular backup / restore
Backup Duration / Restore Duration	Duration of the backup / restore for the particular backup / restore
Backup Status / Restore Status	Status of the particular backup / restore job
Backup Size / Restore Size	Backup size / Restore size No. of files [Compressed size / Uncompressed size]

➤ Disk Storage Usage

This page shows a list of statistics data regarding disk storage usage.

Daily User report (steven.tse@ahsay.com)					WEB VIEW	PRINT VIEW
Generated at : Friday, November 25, 2016 19:00:04 CST						
PROBLEMS ISSUES ACTIVITIES STATISTICS						
Users Data Transfer Disk Storage Usage						
Destination	Data Size	Retention Size	No. of Backup Sets	Since		
CBS	14.52G	481.85M	29	06/21/2016 14:10:44		
DestinationPool-1	0	0	1	08/15/2016 09:33:48		
GoogleDrive-1	1.12G	137.97M	2	07/25/2016 11:40:28		

Destination	Backup destination used by the backup user
Data Size	Size of data backed up to the particular backup destination
Retention Size	Size of retention area on the particular backup destination
No. of Backup Sets	Number of backup set(s) on the particular backup destination
Since	The data and time when the particular backup destination was created

Daily Report Viewing Option

There are two viewing options for the daily report, namely the WEB VIEW and PRINT VIEW, which can be altered by click the corresponding icon at the top right corner.

Daily User report (steven.tse@ahsay.com)					WEB VIEW	PRINT VIEW
--	--	--	--	--	----------	------------

The **WEB VIEW** is an interactive style report where data is presented under different categories while user navigates through the report.

Daily User report (steven.tse@ahsay.com)											WEB VIEW	PRINT VIEW
Generated at : Wednesday, November 23, 2016 19:00:05 CST												
PROBLEMS ISSUES ACTIVITIES STATISTICS												
Users Data Transfer Disk Storage Usage												
Username	Alias	Registration Date	Last Backup	Last Login	Data Size*	Retention Size*	Yesterday's Upload	Standard Quota	Total Backup (No. of Files/Size)**	Total Restore (No. of Files/Size)**		
steven	Steven (K drive)	11/22/2016 12:17:44	--	11/23/2016 18:30:45	928.96M / 1.07G	56.07M / 67.99M	0	1G	2078 [985.02M / 1.14G]	1968 [928.29M / 1.07G]		
steven2	steven OBM	06/07/2016 13:32:20	11 Day(s)	11/11/2016 22:15:39	7.31G / 14.52G	60.33M / 481.85M	0	100G	8760 [7.45G / 15.45G]	1585 [5.18G / 9.4G]		
steventrial	--	11/22/2016 18:59:38	--	--	0 / 0	0 / 0	0	50M	0 [0 / 0]	0 [0 / 0]		
* Unit = Compressed / Uncompressed												
** Unit = No. of files [Compressed size / Uncompressed size]												

Appendix J System Files for Continuous Backup Exclusion

Below is a full list of system files you choose to exclude from performing the continuous backup.

- C:\Program Files
- C:\Windows
- Pagefile.sys
- hiberfil.sys
- *.tmp
- *.part
- System Volume Information
- \$Recycle.Bin (Vista, 2008/R2, Win7)
- RECYCLER(2000, XP, 2003)
- RECYCLED
- C:\Documents and Settings\All Users\Application Data\Microsoft, C:\ProgramData\Microsoft
- C:\Documents and Settings\All Users\Application Data\Kaspersky Lab
- C:\Documents and Settings\All Users\Application Data\Symantec
- C:\Documents and Settings\All Users\Application Data\Avg7
- C:\Documents and Settings\All Users\Application Data\Avg8
- C:\Documents and Settings\All Users\Application Data\McAfee
- C:\Documents and Settings\All Users\Application Data\McAfee.com
- C:\Documents and Settings\All Users\Application Data\Sophos
- ntuser.dat ntuser.dat.log
- *AppData\Local\Microsoft*
- *AppData\Local\Temp*
- *AppData\Roaming Data\Microsoft*
- *Local Settings\Application Data\Microsoft*
- *Local Settings\Temporary Internet Files
- *Local Settings\Temp
- *Local Settings\History
- *LOCALS~1\Temp
- *LOCALS~1\Tempor~1
- *LOCALS~1\History
- ~\$*.doc
- ~\$*.ppt
- ~\$*.xls
- ~\$*.dot