

# AhsayCBS v9

## New Features Datasheet

Ahsay Systems Corporation Limited  
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## Overview (v9.1)

Starting with AhsayCBS v9, the In-File Delta feature (that offers Incremental, Differential, and Full backups) will be replaced with **Deduplication**.

**Deduplication** is part of the backup process that identifies and eliminates duplicate copies of repeating data, storing it once, in order to save storage space. Deduplication plays a major role in managing storage space, particularly when performed over large volumes of data.

Both the In-File Delta and Deduplication technologies use an *advanced data block matching algorithm* that is capable to verify each block and identify which block is duplicated to compare file contents between two files. Thus, the non-duplicated block will be entirely included in the backup data.

However, with In-File Delta, the MD5 checksum algorithm is used during backups to verify data integrity, but only against unintentional corruption.

On the other hand, Deduplication will use the new speed-optimized XXH3 checksum algorithm. The XXH3 checksum algorithm offers enhanced speed performance in data block matching and is dependable especially when backing up very large files. Thus, saving a lot of time during backups.

## Deduplication

Deduplication is an additional Add-on Module that can be enabled per user via the following options. If the Deduplication module is not enabled for the user, the user's backup set with the Deduplication feature enabled will be treated as disabled when a backup job is performed.

### Free Trial Options Tab

#### Backup / Restore > Basic > Free Trial Options

The screenshot shows the AhsayCBS web interface for configuring Free Trial Options. The page is titled "Free Trial Registration" and includes a section for "Add-on Modules". The "Deduplication" module is highlighted with a red box.

**Free Trial Registration**

☒ Enable Free Trial Registration

Quota

☐ ☐

Destination	Quota
<input type="checkbox"/> AhsayCBS	50.0 Mbytes

**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 <input type="text" value="Guest VM"/> <input type="text" value="10"/>	<input checked="" type="checkbox"/> Hyper-V <input type="text" value="Guest VM"/> <input type="text" value="10"/>
<input checked="" type="checkbox"/> Microsoft Exchange Mailbox <input type="text" value="10"/>	<input checked="" type="checkbox"/> ShadowProtect System Backup
<input checked="" type="checkbox"/> Continuous Data Protection	<input checked="" type="checkbox"/> NAS - Synology
<input type="checkbox"/> Mobile (max. 10)	<input checked="" type="checkbox"/> NAS - QNAP
<input checked="" type="checkbox"/> Volume Shadow Copy	<input checked="" type="checkbox"/> In-File Delta
<input checked="" type="checkbox"/> OpenDirect / Granular Restore <input type="text" value="10"/>	<input checked="" type="checkbox"/> Office 365 Backup <input type="text" value="10"/>
<input checked="" type="checkbox"/> MariaDB Database Server	<input checked="" type="checkbox"/> Deduplication

## Backup Client Settings Tab

### Backup / Restore > Users, Groups & Policies > Backup User > Backup Client Settings

User Profile	General	Backup Client Settings	Contact	User Group	Authentication	Mobile Backup																						
<a href="#">Backup Set</a> <a href="#">Settings</a> <a href="#">Report</a> <a href="#">Statistics</a> <a href="#">Effective Policy</a>	<p>Settings of the client backup agent for this user.</p> <div> <b>Backup Client</b>   <input checked="" type="radio"/> AhsayOBM User   <input type="radio"/> AhsayACB User         </div> <div> <b>Add-on Modules</b> <table border="0"> <tbody> <tr> <td><input type="checkbox"/>  Microsoft Exchange Server</td> <td><input type="checkbox"/>  Microsoft SQL Server</td> </tr> <tr> <td><input type="checkbox"/>  MySQL Database Server</td> <td><input type="checkbox"/>  Oracle Database Server</td> </tr> <tr> <td><input type="checkbox"/>  Lotus Domino</td> <td><input type="checkbox"/>  Lotus Notes</td> </tr> <tr> <td><input type="checkbox"/>  Windows System Backup</td> <td><input type="checkbox"/>  Windows System State Backup</td> </tr> <tr> <td><input type="checkbox"/>  VMware <input type="text" value="Guest VM"/> <input type="text" value="0"/></td> <td><input type="checkbox"/>  Hyper-V <input type="text" value="Guest VM"/> <input type="text" value="0"/></td> </tr> <tr> <td><input type="checkbox"/>  Microsoft Exchange Mailbox <input type="text" value="0"/></td> <td><input type="checkbox"/>  ShadowProtect System Backup</td> </tr> <tr> <td><input type="checkbox"/>  NAS - QNAP</td> <td><input type="checkbox"/>  NAS - Synology</td> </tr> <tr> <td><input checked="" type="checkbox"/>  Mobile (max. 10)</td> <td><input type="checkbox"/>  Continuous Data Protection</td> </tr> <tr> <td><input type="checkbox"/>  Volume Shadow Copy</td> <td><input type="checkbox"/>  In-File DeltaOnly apply to v8 or before</td> </tr> <tr> <td><input type="checkbox"/>  OpenDirect / Granular Restore <input type="text" value="0"/></td> <td><input type="checkbox"/>  Office 365 Backup <input type="text" value="0"/></td> </tr> <tr> <td><input type="checkbox"/>  MariaDB Database Server</td> <td><input checked="" type="checkbox"/>  Deduplication</td> </tr> </tbody> </table> </div>						<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 - QNAP	<input type="checkbox"/> NAS - Synology	<input checked="" type="checkbox"/> Mobile (max. 10)	<input type="checkbox"/> Continuous Data Protection	<input type="checkbox"/> Volume Shadow Copy	<input type="checkbox"/> In-File DeltaOnly apply to v8 or before	<input type="checkbox"/> OpenDirect / Granular Restore <input type="text" value="0"/>	<input type="checkbox"/> Office 365 Backup <input type="text" value="0"/>	<input type="checkbox"/> MariaDB Database Server	<input checked="" type="checkbox"/> Deduplication
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**Note:** For newly created users, the Deduplication module is **enabled** by default.

## AhsayCBS Policy Settings Layout

Another Deduplication-related change with AhsayCBS v9 is the “In-File Delta” tab replaced with the “Deduplication” tab under the Policy settings.

**Backup / Restore > Users, Groups & Policies > Policy Group > Default Values**

**Backup / Restore > Users, Groups & Policies > Policy Group > Preempted Values**

## AhsayCBS v8 Policy Settings Legacy Layout

The screenshot shows the AhsayCBS v8 Policy Settings Legacy Layout. The left sidebar contains a list of settings categories: General, User Settings, Backup Set Settings, GUI Settings, Default Values (highlighted), Preempted Values, Preempted Backup Sets, and Mobile Settings. The main panel has a tabbed interface with tabs: General, Source, Backup Schedule, Continuous Backup, Destination, In-File Delta (highlighted with a red box), Retention Policy, Command Line Tool, Reminder, Bandwidth Control, IP Allowed for Restore, and Others. The 'In-File Delta' tab is active, showing a section with a '+' icon, a 'Name' input field, and a checkbox for 'Default in-file Delta settings'. Below these is a row of 'Applied Modules' represented by various application icons.

## AhsayCBS v9 Policy Settings New Layout

The screenshot shows the AhsayCBS v9 Policy Settings New Layout. The left sidebar is identical to the v8 version. The main panel has a tabbed interface with tabs: General, Source, Backup Schedule, Continuous Backup, Destination, Deduplication (highlighted with a red box), Retention Policy, Command Line Tool, Reminder, Bandwidth Control, IP Allowed for Restore, and Others. The 'Deduplication' tab is active, showing a section with a '+' icon, a 'Name' input field, and a checkbox for 'Default deduplication settings'. Below these is a row of 'Applied Modules' represented by various application icons.

## Default deduplication settings

The screenshot shows the 'Enable Deduplication' settings page. It has a title 'Enable Deduplication' and a 'Name' input field with the value 'Default deduplication settings'. Below this is a section 'Applied Modules' with a grid of checkboxes for various backup types: File Backup, MySQL Backup, IBM Lotus Notes Backup, VMware Backup, ShadowProtect System Backup, MariaDB Backup, MS Exchange Server Backup, Oracle Database Server Backup, MS Windows System Backup, MS Hyper-V Backup, Cloud File Backup, MS SQL Server Backup, IBM Lotus Domino Backup, MS Windows System State Backup, MS Exchange Mail Level Backup, and Office 365 Backup. All checkboxes are checked. Below this is a section 'Enable Deduplication' with a checkbox for 'Deduplication scope' (checked), a radio button for 'Same file path within the same backup set' (selected), and a radio button for 'All files within the same backup set'. There is also a 'Block size' dropdown menu set to 'Auto' and a checkbox for 'Migrate existing data to latest version'. At the bottom, there is a link 'Show legacy settings (for version 8 or before only)'.

**Note:** Choices for block size has been updated, please refer to [Deduplication v9.5](#) for the details.

For legacy clients (v8 or earlier), the In-File Delta settings can be found here by clicking the link: [Show legacy settings \(for version 8 or before only\)](#).

## Enable Deduplication

Name

Default deduplication settings

Applied Modules

<input checked="" type="checkbox"/> File Backup	<input checked="" type="checkbox"/> MS Exchange Server Backup	<input checked="" type="checkbox"/> MS SQL Server Backup
<input checked="" type="checkbox"/> MySQL Backup	<input checked="" type="checkbox"/> Oracle Database Server Backup	<input checked="" type="checkbox"/> IBM Lotus Domino Backup
<input checked="" type="checkbox"/> IBM Lotus Notes Backup	<input checked="" type="checkbox"/> MS Windows System Backup	<input checked="" type="checkbox"/> MS Windows System State Backup
<input checked="" type="checkbox"/> VMware Backup	<input checked="" type="checkbox"/> MS Hyper-V Backup	<input checked="" type="checkbox"/> MS Exchange Mail Level Backup
<input checked="" type="checkbox"/> ShadowProtect System Backup	<input checked="" type="checkbox"/> Cloud File Backup	<input checked="" type="checkbox"/> Office 365 Backup
<input checked="" type="checkbox"/> MariaDB Backup		

### Enable Deduplication

Deduplication scope

☐ Same file path within the same backup set

☒ All files within the same backup set

Block size

Auto ▼ Bytes

☐ Migrate existing data to latest version

[Show legacy settings \(for version 8 or before only\)](#)



## In-File Delta Legacy settings for version 8 or earlier

Hide legacy settings (for version 8 or before only)

Default Type  
Differential

In-File Delta block size  
Auto Bytes

Only apply In-File Delta to files larger than  
25 MB

Upload full file when either of these conditions is met

☒ Number of deltas is over 100

☒ Delta ratio (delta file size / full file size) is over 50

☒ Failed to generate delta file

Weekly variations for overriding default type

☐ Sunday Full

☐ Monday Full

☐ Tuesday Full

☐ Wednesday Full

☐ Thursday Full

☐ Friday Full

☐ Saturday Full

Yearly variations for overriding default type and weekly variations

☐ January Full

☐ February Full

☐ March Full

☐ April Full

☐ May Full

☐ June Full

☐ July Full

☐ August Full

☐ September Full

☐ October Full

☐ November Full

☐ December Full














Day of selected months in yearly variations

☐ Day 1

☒ First Friday

Within Policy settings are new GUI policies for the Deduplication feature.

## Backup / Restore > Users, Groups & Policies > Policy Group > GUI Settings

General	Destination Tab	 	<input type="checkbox"/>
User Settings	Destination Settings	 	<input type="checkbox"/>
Backup Set Settings	In-File Delta Tab		<input type="checkbox"/>
GUI Settings	In-File Delta Settings		<input type="checkbox"/>
Default Values	Deduplication Tab		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Preempted Values	Deduplication Settings		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Preempted Backup Sets	Deduplication - Backup Set Level Deduplication		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
	Retention Policy Tab		<input type="checkbox"/>
	Retention Policy Settings	 	<input type="checkbox"/>
	Command Line Tool Tab		<input type="checkbox"/>

# Datasheet

## AhsayCBS with Meter License

For clients with Meter License applied, they will have an additional **Usage** tab under the License menu.

### System Settings > License > Usage

The screenshot shows the AhsayCBS interface with the 'Usage' tab selected. The tab is highlighted with a red box. Below the tab, the text 'Monthly usage of each user.' is displayed. The main content area is titled 'Usage' and includes a 'Show/Hide columns' section with various checkboxes for data columns. The 'View' dropdown is set to 'This Month', and there is an 'Export to .CSV' button. A table displays user data with columns for User name, Registration date, Storage size, Dedupe saving, Host, and various backup types (Microsoft Exchange, VMware, NAS, Mobile, Microsoft 365, Open Direct, Replication). The table shows three users, all registered on 2017-03-16, with storage usage ranging from 0 to 114.13M. The bottom of the interface has a green 'Save' button and a black 'X' button.

User name	Registration date	Storage size	Dedupe saving	Host	Microsoft Exchange mailboxes	Guest VMware / Hyper V (per guest VM)	Socket VMware / Hyper V (per socket)	NAS - Synology / QNAP	Mobile	Microsoft 365	Open Direct / Granular Restore	Replication
[User Icon]	2017-03-16	0 / 0 [-]	0	server-1	0	0	0	0	0	0	0	N
[User Icon]	2017-03-16	0 / 0 [-]	0	server-1	0	0	0	0	0	0	0	N
[User Icon]	2017-03-16	114.13M / 114.13M [ 100.0% ]	1.34G / 1.45G [ 92.3% ]		0	0	0	0	0	0	0	N

**Note:** The **Usage** tab is only visible for AhsayCBS with Meter License applied.


# Datasheet

## Backup Job Scenarios with Deduplication

The following example is when the Deduplication module is disabled for the user, and a backup job is performed with the Deduplication feature **On (enabled)**.

User Deduplication Module = unmarked

☐



Deduplication

Backup Set Deduplication Toggle=On

Deduplication

Enable Deduplication

On

Backup Report

Show All

Type	Log	Time
	The deduplication feature is not enabled on this account. Please be aware that files are being backed up in their entirety i...	30/05/2022 10:56:34
	Start [ AhsayOBM v9.2.0.4 ]	30/05/2022 10:56:35
	Saving encrypted backup set encryption keys to server...	30/05/2022 10:56:35
	Start Backup ... [Deduplication: disabled]	30/05/2022 10:56:36
	Using Temporary Directory C:\Users\Administrator\temp\1653879328206\OBS@1653879355836	30/05/2022 10:56:36
	Start running pre-commands	30/05/2022 10:56:38
	Finished running pre-commands	30/05/2022 10:56:38
	Downloading server file list...	30/05/2022 10:56:38
	Create new index since no valid index exist on both local and destination	30/05/2022 10:56:38
	Downloading server file list... Completed	30/05/2022 10:56:38
	Contact your service provider to enable [Volume Shadow Copy] support	30/05/2022 10:56:39
	Reading backup source from hard disk...	30/05/2022 10:56:39
	Reading backup source from hard disk... Completed	30/05/2022 10:56:39
	[New Directory]... C:\	30/05/2022 10:56:39
	[New Directory]... C:\backup files	30/05/2022 10:56:39
	[New Directory]... C:\backup files\filtersamples	30/05/2022 10:56:39
	[New File]... 100% of "C:\backup files\filtersamples\AhsayACB_UserGuideforWindows_version7.docx"	30/05/2022 10:56:39
	[New File]... 84% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v10.pptx"	30/05/2022 10:56:39
	[New File]... 100% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v10.pptx"	30/05/2022 10:56:39
	[New File]... 100% of "C:\backup files\filtersamples\AhsayCBS_version7_UserGuide.docx"	30/05/2022 10:56:40
	[New File]... 84% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v7.pptx"	30/05/2022 10:56:40
	[New File]... 100% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v7.pptx"	30/05/2022 10:56:40
	[New File]... 84% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v8.pptx"	30/05/2022 10:56:40

Logs per page 50



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Close

Close Help

## Datasheet
























The following example is when the Deduplication module is enabled for the user, and a backup job is performed with the Deduplication feature **Off (disabled)**.

User Deduplication Module = marked	Backup Set Deduplication Toggle=Off
	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <h3 style="color: #4F81BD;">Deduplication</h3> <p>Enable Deduplication</p> <p><b>Off</b> </p> </div>

### Backup Report

Show All ▼

Type	Log	Time
	Deduplication look up will be skipped because deduplication setting of this backup set is set to disabled.	30/05/2022 11:00:38
	Start [ AhsayOBM v9.2.0.4 ]	30/05/2022 11:00:39
	Saving encrypted backup set encryption keys to server...	30/05/2022 11:00:39
	Start Backup ... [Deduplication: disabled]	30/05/2022 11:00:40
	Using Temporary Directory C:\Users\Administrator\temp\1653879586247\OBS@1653879610747	30/05/2022 11:00:40
	Start running pre-commands	30/05/2022 11:00:41
	Finished running pre-commands	30/05/2022 11:00:41
	Downloading server file list...	30/05/2022 11:00:41
	Create new index since no valid index exist on both local and destination	30/05/2022 11:00:41
	Downloading server file list... Completed	30/05/2022 11:00:41
	Contact your service provider to enable [Volume Shadow Copy] support	30/05/2022 11:00:42
	Reading backup source from hard disk...	30/05/2022 11:00:42
	Reading backup source from hard disk... Completed	30/05/2022 11:00:42
	[New Directory]... C:\	30/05/2022 11:00:43
	[New Directory]... C:\backup files	30/05/2022 11:00:43
	[New Directory]... C:\backup files\filtersamples	30/05/2022 11:00:43
	[New File]... 100% of "C:\backup files\filtersamples\AhsayACB_UserGuideforWindows_version7.docx"	30/05/2022 11:00:43
	[New File]... 100% of "C:\backup files\filtersamples\AhsayCBS_version7_UserGuide.docx"	30/05/2022 11:00:43
	[New File]... 84% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v10.pptx"	30/05/2022 11:00:43
	[New File]... 100% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v10.pptx"	30/05/2022 11:00:43
	[New File]... 84% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v7.pptx"	30/05/2022 11:00:43
	[New File]... 100% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v7.pptx"	30/05/2022 11:00:43
	[New File]... 19% of "C:\backup files\filtersamples\AlertMessageOne.png"	30/05/2022 11:00:43


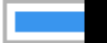
Logs per page 50 ▼
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Close

Close
Help

## Datasheet

The following example is when the Deduplication module is enabled for the user, and a backup job is performed with the Deduplication feature **On (enabled)**.

User Deduplication Module = marked	Backup Set Deduplication Toggle=On
	<div><h3>Deduplication</h3><p>Enable Deduplication</p><p>On </p></div>

### Backup Report

Show All

Type	Log	Time
	Start [ AhsayOBM v9.2.0.4 ]	30/05/2022 11:03:50
	Saving encrypted backup set encryption keys to server...	30/05/2022 11:03:50
	Start Backup ... [Deduplication: enabled, Deduplication scope: All files within the same backup set, Migrate Data: disabled]	30/05/2022 11:03:51
	Using Temporary Directory C:\Users\Administrator\temp\1653879787198\OBS@1653879803686	30/05/2022 11:03:51
	Start running pre-commands	30/05/2022 11:03:52
	Finished running pre-commands	30/05/2022 11:03:52
	Downloading server file list...	30/05/2022 11:03:52
	Create new index since no valid index exist on both local and destination	30/05/2022 11:03:52
	Downloading server file list... Completed	30/05/2022 11:03:52
	Contact your service provider to enable [Volume Shadow Copy] support	30/05/2022 11:03:53
	Reading backup source from hard disk...	30/05/2022 11:03:53
	Reading backup source from hard disk... Completed	30/05/2022 11:03:53
	[New Directory]... C:\	30/05/2022 11:03:53
	[New Directory]... C:\backup files	30/05/2022 11:03:53
	[New Directory]... C:\backup files\filtersamples	30/05/2022 11:03:53
	[New File]... 84% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v10.pptx"	30/05/2022 11:03:53
	[New File]... 100% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v10.pptx"	30/05/2022 11:03:53
	[New File]... 100% of "C:\backup files\filtersamples\AhsayCBS_version7_UserGuide.docx"	30/05/2022 11:03:53
	[New File]... 100% of "C:\backup files\filtersamples\AhsayACB_UserGuideforWindows_version7.docx"	30/05/2022 11:03:53
	[New File]... 84% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v9.pptx"	30/05/2022 11:03:53
	[New File]... 19% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:03:53
	[New File]... 39% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:03:53
	[New File]... 59% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:03:53

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CloseCloseHelp

## Migrate Data

Deduplication has an advanced backup option: **Migrate Data**.

For **newly created v9 backup sets**, the Migrate Data option setting depends on Deduplication Default Values policy assigned to the user. While for **existing backup sets**, this option is **not marked** by default. Both can be managed by policies: **Default Values** and **Preempted Values** on the AhsayCBS Web Console.

The Migrate Data feature is meant for existing pre-AhsayCBS v9 backup data. When a pre-AhsayCBS v9 backup set is run with the Migrate Data option **enabled** and it contains v8 (or earlier) data that are previously backed up, the whole v8 (or earlier) backup data consisting of changed source will be re-uploaded and migrated to the latest version (v9). Therefore, backup jobs with Migrate Data option enabled may take longer to finish especially for large file(s).



For entirely v9 data and backup set, the Migrate Data will not have any effect when enabled during a backup job.

### Example:

- When a 100GB backup data is modified and a backup job is run, only the modified file(s) will be uploaded for the following setting:

**Migrate Data**  
☐ Migrate existing data to latest version

- When a 100GB backup data is modified and a backup job is run, the whole backup data will be re-uploaded and migrated to the latest version (v9) for the following setting:

**Migrate Data**  
☒ Migrate existing data to latest version

During a backup job, the 100GB backup data will be divided into physical data block size of **32MB** up to **64MB** before it is uploaded to the backup destination(s).

However, backup data which are smaller than 32MB will NOT affect the backup performance as the physical data block size will not be divided into chunks.

## Datasheet

The Migrate Data option will not affect the backup performance if the Deduplication feature is configured **Off (disabled)** for the backup set. The Migrate Data option can be configured in two (2) ways:



### Deduplication tab (only for AhsayOBM)

The screenshot shows the 'Deduplication' tab for 'BackupSet-1'. On the left is a sidebar with navigation links: General, Source, Backup Schedule, Continuous Backup, Destination, and Deduplication (which is highlighted in blue). The main content area is titled 'Deduplication' and contains the following settings: 'Enable Deduplication' is set to 'On' with a toggle switch; 'Deduplication scope' has two radio buttons, with 'All files within the same backup set' selected; 'Block size' is set to 'Auto' in a dropdown menu, followed by the unit 'Bytes'; and at the bottom, the option 'Migrate existing data to latest version' is shown with an unchecked checkbox, which is highlighted by a red rectangular box.

### Choose Your Backup Options screen

The screenshot shows the 'Choose Your Backup Options' screen for 'BackupSet-1'. It includes the following configuration options: 'Backup set type' is 'File'; 'Destinations' has a checked checkbox for 'AhsayCBS (Host: 10.3.121.17:80)'; 'Migrate Data' is a section with an unchecked checkbox for 'Migrate existing data to latest version', which is highlighted by a red rectangular box; and 'Retention Policy' has an unchecked checkbox for 'Run Retention Policy after backup'. A link 'Hide advanced option' is at the bottom.

This option can be configured (i.e., enable or disable) before running a backup job. For newly created v9 backup sets, if enabled, it is ignored and serves no function for pure v9 backup sets.


Product	Description
 AhsayOBM	▶ For AhsayOBM, the <b>Migrate Data</b> option will be shown if the Deduplication feature is <b>On (enabled)</b> for the backup set.
 AhsayACB	▶ For AhsayACB, the <b>Migrate Data</b> option cannot be hidden, and to enable or disable this is the only option available.




## Datasheet

The following is an example of backup log in AhsayOBM with both Deduplication and Migrate Data option enabled.

### Choose Your Backup Options

 **Sample Backup Set**

Backup set type  
File
























Destinations  
☒  AhsayCBS (Host: 10.3.121.17:80)

☒ Migrate Data  
☒ Migrate existing data to latest version

Retention Policy  
☒ Run Retention Policy after backup

[Hide advanced option](#)

Show All

Type	Log	Time
	Start [ AhsayOBM v9.2.0.4 ]	30/05/2022 11:08:24
	Saving encrypted backup set encryption keys to server...	30/05/2022 11:08:24
	Start Backup ... [Deduplication: enabled, Deduplication scope: All files within the same backup set, Migrate Data: enabled]	30/05/2022 11:08:25
	Using Temporary Directory C:\Users\Administrator\temp\1653880032864\OBS@1653880058088	30/05/2022 11:08:25
	Start running pre-commands	30/05/2022 11:08:26
	Finished running pre-commands	30/05/2022 11:08:26
	Downloading server file list...	30/05/2022 11:08:26
	Create new index since no valid index exist on both local and destination	30/05/2022 11:08:26
	Downloading server file list... Completed	30/05/2022 11:08:26
	Contact your service provider to enable [Volume Shadow Copy] support	30/05/2022 11:08:27
	Reading backup source from hard disk...	30/05/2022 11:08:27
	Reading backup source from hard disk... Completed	30/05/2022 11:08:27
	[New Directory]... C:\	30/05/2022 11:08:28
	[New Directory]... C:\backup files	30/05/2022 11:08:28
	[New Directory]... C:\backup files\filtersamples	30/05/2022 11:08:28
	[New File]... 19% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:08:28
	[New File]... 39% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:08:28
	[New File]... 59% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:08:28
	[New File]... 78% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:08:28
	[New File]... 98% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:08:28
	[New File]... 100% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:08:28
	[New File]... 100% of "C:\backup files\filtersamples\AhsayCBS_version7_UserGuide.docx"	30/05/2022 11:08:28
	[New File]... 100% of "C:\backup files\filtersamples\AhsayOBM version7 QuickStartGuide.docx"	30/05/2022 11:08:28

Logs per page 50

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Close

Close Help

## Datasheet


The following is an example of backup log in AhsayOBM with Deduplication **On (enabled)** and Migrate Data option **disabled**.

### Choose Your Backup Options

 **Sample Backup Set**

Backup set type  
File

Destinations

☒  AhsayCBS (Host: 10.3.121.17:80)

☒ Migrate Data  
☐ Migrate existing data to latest version

Retention Policy

☒ Run Retention Policy after backup

[Hide advanced option](#)

Show All

Type	Log	Time
i	Start [ AhsayOBM v9.2.0.4 ]	30/05/2022 11:03:50
i	Saving encrypted backup set encryption keys to server...	30/05/2022 11:03:50
i	Start Backup ... [Deduplication: enabled, Deduplication scope: All files within the same backup set, Migrate Data: disabled]	30/05/2022 11:03:51
i	Using Temporary Directory C:\Users\Administrator\temp\1653879787198\OBS@1653879803686	30/05/2022 11:03:51
i	Start running pre-commands	30/05/2022 11:03:52
i	Finished running pre-commands	30/05/2022 11:03:52
i	Downloading server file list...	30/05/2022 11:03:52
i	Create new index since no valid index exist on both local and destination	30/05/2022 11:03:52
i	Downloading server file list... Completed	30/05/2022 11:03:52
i	Contact your service provider to enable [Volume Shadow Copy] support	30/05/2022 11:03:53
i	Reading backup source from hard disk...	30/05/2022 11:03:53
i	Reading backup source from hard disk... Completed	30/05/2022 11:03:53
i	[New Directory]... C:\	30/05/2022 11:03:53
i	[New Directory]... C:\backup files	30/05/2022 11:03:53
i	[New Directory]... C:\backup files\filtersamples	30/05/2022 11:03:53
i	[New File]... 84% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v10.pptx"	30/05/2022 11:03:53
i	[New File]... 100% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v10.pptx"	30/05/2022 11:03:53
i	[New File]... 100% of "C:\backup files\filtersamples\AhsayCBS_version7_UserGuide.docx"	30/05/2022 11:03:53
i	[New File]... 100% of "C:\backup files\filtersamples\AhsayACB_UserGuideforWindows_version7.docx"	30/05/2022 11:03:53
i	[New File]... 84% of "C:\backup files\filtersamples\AhsayCloudFileBackupSolution_v9.pptx"	30/05/2022 11:03:53
i	[New File]... 19% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:03:53
i	[New File]... 39% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:03:53
i	[New File]... 59% of "C:\backup files\filtersamples\AlertMessageFive.png"	30/05/2022 11:03:53

Logs per page 50

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Close

Close Help

## Datasheet

To configure the Deduplication feature in AhsayOBM v9 (or above), click the **Show advanced settings** link under the backup set settings.

The screenshot displays the 'Sample Backup Set' configuration window. On the left, a sidebar lists settings: General, Source, Backup Schedule, Continuous Backup, Destination, and a highlighted 'Show advanced settings' link. The main area shows the 'General' tab with fields for Name (Sample Backup Set), Owner (w8-pro), and Windows User Authentication details (Domain Name: example.com, User name: Administrator, Password: empty). At the bottom, there is a 'Delete this backup set' link and 'Save', 'Cancel', and 'Help' buttons.

Section	Field	Value
General	Name	Sample Backup Set
	Owner	w8-pro
Windows User Authentication	Domain Name (e.g Ahsay.com) / Host Name	example.com
	User name	Administrator
	Password	

# Datasheet

Go to the **Deduplication** tab. You will find all the configurable settings for Deduplication in here.

**Sample Backup Set**

General

Source

Backup Schedule

Continuous Backup

Destination

**Deduplication**

Retention Policy

Command Line Tool

Reminder

Bandwidth Control

Others

[Hide advanced settings](#)

Delete this backup set

**Deduplication**

Enable Deduplication  
On ☒

Deduplication scope

☐ Same file path within the same backup set

☒ All files within the same backup set

Block size  
Auto  Bytes

☐ Migrate existing data to latest version

Save Cancel Help

For newly created backup sets in AhsayOBM v9 (or above), the Deduplication feature is **On (enabled)** by default.

**Deduplication**

Enable Deduplication  
On ☒

## Deduplication scope

The Deduplication scope consists of two options:

- ▶ **Same file path within the same backup set**
- ▶ **All files within the same backup set** (selected by default)

Deduplication scope

☐ Same file path within the same backup set

☒ All files within the same backup set

### Same file path within the same backup set

- ⇒ If this type of Deduplication scope is selected, each backup file will be split into several blocks of varying size, then a checksum verification of each block will be performed to compare the file content throughout the **latest changed data** to identify which block is duplicated.

Any duplicated data under the same file path will be removed during a backup job.

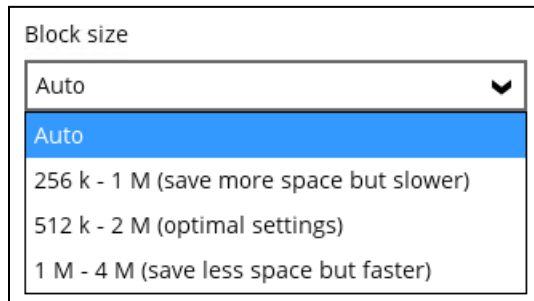
### All files within the same backup set

- ⇒ This is the selected Deduplication scope by default. When selected, each backup file will be split into several blocks of varying size, then a checksum verification of each block will be performed to compare the file content throughout the **whole backup data** to identify which block is duplicated.

Any duplicated data under the same backup set will be removed during a backup job.

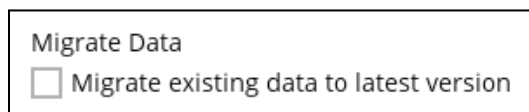
### Block size


This option allows you to select the size of block during the checksum verification for each block. This setting is set to **Auto** by default, but you may select from the following Block size range.

A screenshot of a dropdown menu titled "Block size". The menu is open, showing four options: "Auto" (which is highlighted with a blue background), "256 k - 1 M (save more space but slower)", "512 k - 2 M (optimal settings)", and "1 M - 4 M (save less space but faster)". A small downward arrow is visible at the top right of the dropdown box.

### Migrate Data

Besides the **Migrate Data** option in the [Choose Your Backup Options](#) screen before running a backup job, you may also enable or disable this option in the Deduplication tab.

A screenshot of a checkbox labeled "Migrate Data". The checkbox is currently unchecked, and the text "Migrate existing data to latest version" is displayed next to it.

**Note:** Make sure to always click the  button when any of the Deduplication settings have been modified to store any changes.

## How Deduplication works for each type of Deduplication Scope

### ➤ Same file path within the same backup set (File Path Level)

Deduplication applies to CURRENT backup JOB and it applies to duplicated contents WITHIN a file.

e.g., 2 files are being backed up

1 <sup>st</sup> backup job:	
Backup Source	File 1: [50MB of content A] + [60MB of content B] + [50MB of content A]
	File 2: [50MB of content A] + [70MB of content C] + [50MB of content A]
Deduplicated contents backup	File 1: [50MB of content A] + [60MB of content B]
	File 2: [50MB of content A] + [70MB of content C]

2 <sup>nd</sup> backup job:	
Backup Source	File 1: [50MB of content A] + [60MB of content B] + [50MB of content A] + [10MB of new content D]
	File 2: [50MB of content A] + [70MB of content C] + [50MB of content A] + [10MB of new content D] + [20MB of new content E]
Deduplicated contents backup	File 1: [10MB of new content D]
	File 2: [10MB of new content D] + [20MB of new content E]

➤ **All files within the same backup set (Backup Set Level)**

Deduplication applies ACROSS different files in the backup SET.

e.g., 2 files are being backed up

1 <sup>st</sup> backup job:	
Backup Source	File 1: [50MB of content A] + [60MB of content B] + [50MB of content A]
	File 2: [50MB of content A] + [70MB of content C] + [50MB of content A]
Deduplicated contents backup	[50MB of content A] + [60MB of content B] + [70MB of content C]

2 <sup>nd</sup> backup job:	
Backup Source	File 1: [50MB of content A] + [60MB of content B] + [50MB of content A] + [10MB of new content D]
	File 2: [50MB of content A] + [70MB of content C] + [50MB of content A] + [10MB of new content D] + [20MB of new content E]
Deduplicated contents backup	[10MB of new content D] + [20MB of new content E]

## ➤ Deduplication OFF

No Deduplication of files.

e.g., 2 files are being backed up

1 <sup>st</sup> backup job:	
Backup Source	File 1: [50MB of content A] + [60MB of content B] + [50MB of content A]
	File 2: [50MB of content A] + [70MB of content C] + [50MB of content A]
Contents backup	File 1: [50MB of content A] + [60MB of content B] + [50MB of content A]
	File 2: [50MB of content A] + [70MB of content C] + [50MB of content A]

2 <sup>nd</sup> backup job:	
Backup Source	File 1: [50MB of content A] + [60MB of content B] + [50MB of content A] + [10MB of new content D]
	File 2: [50MB of content A] + [70MB of content C] + [50MB of content A] + [10MB of new content D] + [20MB of new content E]
Contents backup	File 1: [50MB of content A] + [60MB of content B] + [50MB of content A] + [10MB of new content D]
	File 2: [50MB of content A] + [70MB of content C] + [50MB of content A] + [10MB of new content D] + [20MB of new content E]



# Datasheet

## Dedupe Saving

The **Deduplication Saving** (or Dedupe Saving) is the amount of storage space that is saved after running a backup job with Deduplication.

The **Dedupe Saving** is automatically calculated by the following formula:

**[Dedupe Size] / [Original Size] [Deduplication Ratio in %]**

To check the Dedupe Saving of a backup set, go to **Report > Backup**, then select a backup set.

Report

Backup

Restore

Usage

Backup Report

From

18

▼

Nov

▼

2021

▼

To

25

▼





Nov

▼

2021

▼

Go

Backup set	Destination	Completion	Status
 Sample Backu...	 Local-1	Today 14:56	Completed
 Sample Backu...	 Local-1	Today 14:55	Completed

No. of records per page

50

▼

Page

1 / 1

▼

Close

Help

## Datasheet

Upon clicking a backup set, the value of **Dedupe Saving** will be displayed on the summary of backup report.

**Backup Report**

From: 18 Nov 2021 To: 25 Nov 2021

Backup set	Destination	Completion	Status
Sample Backup Set 01	Local-1	11/25/2021 14:56	Completed successfully

**Dedupe Saving** 5M/8.6M [57.5%]

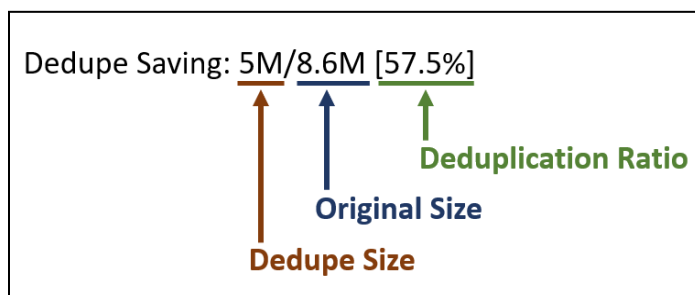
\* Unit = No of files [Total zipped size / Total unzipped size (compression ratio)]

Sample Backu... Local-1 Today 14:55 Completed

No. of records per page: 50 Page: 1 / 1

**Dedup Saving Formula:**

**[Dedupe Size] / [Original Size] [Deduplication Ratio in %]**



**Dedupe Size** – the storage size saved by Deduplication

**Original Size** – the original size of backup data

**Deduplication Ratio** – the percentage of the amount of storage size saved by Deduplication

## Best Practices

	Deduplication	Migrate Data
<b>Pros</b>	When Deduplication is <b>ON</b> , it will minimize data upload during backup which means backup performance is boosted. It will also minimize data download during restore which means restore performance is also boosted.	When Migrate Data is <b>ON</b> , it will increase the restore performance to utilize new restore logic which minimizes data download.
<b>Cons</b>	Backup time will be longer since additional time is needed to process data to turn it into dedupable form during backup.	A full data backup will be done for first-time backup of a file data in v9 (either file was updated or newly backed up), so backup will take longer time to finish.

Here are some suggested settings for Deduplication and Migrate Data option to optimize backup performance.

### **Deduplication = ON and Migrate Data = OFF**

This is the preferred setting to minimize data upload when data is updated, specially if the source data consists of mostly large files such as virtual disks.

This is also helpful to minimize data updates for frequently updated data.

Migrate Data option does not affect small files (< 32MB) that is either rarely or frequently changed.

Backup source that has data that is 50 to 90% frequently updated with long or archive retention period (i.e. 12 months or more) will benefit from this setting.

### **Deduplication = ON and Migrate Data = ON**

This is the preferred setting for user with data that is rarely updated.

Backup source that has data that is 50 to 90% frequently updated with short retention period (i.e. 30 days or less), will also benefit from this setting. This will ensure space consuming v8 data can be deleted ASAP through space freeing up.

### **Deduplication = OFF**

This is the preferred setting for backup source that has data with low deduplication rate and is rarely updated. This will save time in processing the data to be in dedupable form during backup which increases backup performance.

### Physical Data Block Size Enhancement

When running backup jobs starting from v9 client, the data will be compressed, encrypted, and divided for large source files into physical data block size of **32MB** up to **64MB** before it is uploaded to the backup destination(s).

For smaller source files backed up during this job, they may be combined into a single block file, up to **64MB**.

Except for backup jobs with AhsayOBM running on QNAP and Synology NAS, that will use **8MB** up to **16MB** physical data block size.



A detailed summary of this enhancement can be found in **Chapter 1.8 Data Block Size** of the [AhsayCBS v9 Administrator's Guide](#).

# Datasheet

## Data Migration

### AhsayCBS Backup Module Layout

The **Backup Data Migration** page (a legacy feature for v6 data) will no longer exist once upgraded to AhsayCBS v9 or above.

**Backup / Restore > Basic > Backup Data Migration**

### AhsayCBS v8 Basic Module Legacy Layout

AhsayCBS

User Home Free Trial Options Backup Data Migration Run Direct Windows Active Directory Integration

Configure the backup data migration settings

**Enable Data Migration**

Migrating File:  
Number Of Migrated File: 0

Migrate V6 backup data excluded following backup set(s)

<input type="checkbox"/>	Login Name (Alias)	Backup Set
<input type="checkbox"/>		

### AhsayCBS v9 Basic Module New Layout (No Backup Data Migration tab)

AhsayCBS

User Home Free Trial Options Run Direct Windows Active Directory Integration

Configure the user home directory(ies) for storing all user data.

**User Home**

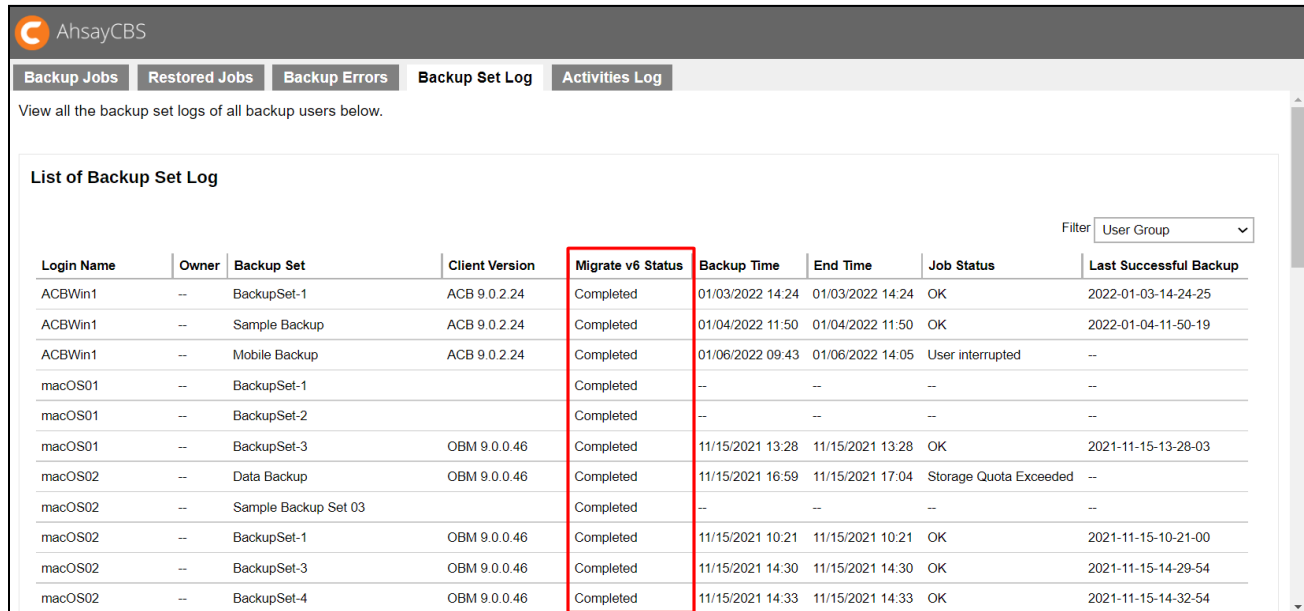
<input type="checkbox"/>	Directory	Current QPS Ratio	Maximum QPS Ratio
<input type="checkbox"/>	C:\Program Files\AhsayCBS\user	276.2% (220G / 79.66G)	Unlimited

# Datasheet

## v6 to v9 Conversion

Starting with AhsayCBS v9, any devices with AhsayOBM/AhsayACB v9 installed running v6 backup sets will no longer be excluded from conversion.

To view the status of the v6 backup set data migration, go to **Monitoring > Backup / Restore Logs > Backup Set Log**.



Login Name	Owner	Backup Set	Client Version	Migrate v6 Status	Backup Time	End Time	Job Status	Last Successful Backup
ACBWin1	--	BackupSet-1	ACB 9.0.2.24	Completed	01/03/2022 14:24	01/03/2022 14:24	OK	2022-01-03-14-24-25
ACBWin1	--	Sample Backup	ACB 9.0.2.24	Completed	01/04/2022 11:50	01/04/2022 11:50	OK	2022-01-04-11-50-19
ACBWin1	--	Mobile Backup	ACB 9.0.2.24	Completed	01/06/2022 09:43	01/06/2022 14:05	User interrupted	--
macOS01	--	BackupSet-1		Completed	--	--	--	--
macOS01	--	BackupSet-2		Completed	--	--	--	--
macOS01	--	BackupSet-3	OBM 9.0.0.46	Completed	11/15/2021 13:28	11/15/2021 13:28	OK	2021-11-15-13-28-03
macOS02	--	Data Backup	OBM 9.0.0.46	Completed	11/15/2021 16:59	11/15/2021 17:04	Storage Quota Exceeded	--
macOS02	--	Sample Backup Set 03		Completed	--	--	--	--
macOS02	--	BackupSet-1	OBM 9.0.0.46	Completed	11/15/2021 10:21	11/15/2021 10:21	OK	2021-11-15-10-21-00
macOS02	--	BackupSet-3	OBM 9.0.0.46	Completed	11/15/2021 14:30	11/15/2021 14:30	OK	2021-11-15-14-29-54
macOS02	--	BackupSet-4	OBM 9.0.0.46	Completed	11/15/2021 14:33	11/15/2021 14:33	OK	2021-11-15-14-32-54

The **Migrate v6 Status** can show “Pending”, “In progress”, and “Completed”.

The “Completed” status indicates that the backup set is fully converted to blocks format with its v6 data removed.

## v6 to v9 Backup Set Data Migration Process

Backup users going from v6 to v9 backup set will undergo a two-stage data migration process:

### First Stage:

Using the old "Backup Data Migration" technology from pre-AhsayCBS v9, v6 backup data will be **automatically converted** to AhsayCBS Blocks data format (block size of **32MB** up to **64MB**) for any user's backup sets running on AhsayOBM/AhsayACB v9 client.

AhsayCBS blocks data will require at least 150% of the User Home temporary free disk space.



Consider to closely monitor the User Home disk as there is no option to suspend, pause, or exclude v6 data in the backup set data migration process.

v6 backup set data will be automatically removed on the post backup data migration process. Therefore, storage is reclaimed on the "Backup Data Migration" technology as part of the pre-AhsayCBS v9 behavior.

### Second Stage:

AhsayCBS v9 "Migrate Data" technology will be used on AhsayCBS v7/v8 data when the option is **enabled** affecting only the changed Source data (reupload). While unchanged Source data will remain in the First Stage of the data migration process (pre-AhsayCBS v9 blocks data).

Storage is reclaimed on the "Migrate Data" technology through the Retention Policy job and the pre-AhsayCBS v9 blocks data will be removed.

As a result, extra free disk space of the User Home temporary storage is necessary (up to 3x from v6 data); consumed by the first "Backup Data Migration", and later for "Migrate Data" technologies.

### Non-VDDK Backup Mode End of Support

Starting with AhsayOBM v9 or above, a non-VDDK backup mode is not supported in VMware vSphere backup, and only VDDK backup mode is supported.

If the VMware backup set is running AhsayOBM v8.5.4.x or v8.7 with AhsayCBS v9, backup jobs in non-VDDK backup mode will still be supported. However, if the AhsayOBM v8.5.4.x or v8.7 is upgraded to AhsayOBM v9 or above with AhsayCBS v9, backup jobs in non-VDDK backup mode will fail to back up.

Therefore, if the VMware backup set will continue to run backup jobs in non-VDDK backup mode, it is recommended to NOT upgrade to AhsayOBM v9 and continue using AhsayOBM v8.5.4.x or v8.7.



## Change in statistic calculation for Retention Area

Starting with v9 or above, statistics for the Retention Area will not be counted due to structural changes in the backup data. The backup file itself will be moved to the Retention Area but the data will not follow since it can be referenced from the Data Area.

### Example:

<table><tr><th>Retention Area*</th></tr><tr><td>3.67M / 3.67M [ 0% ] [ 3 ]</td></tr><tr><td>12K / 75K [ 84% ] [ 1 ]</td></tr></table> <p>v8</p>	Retention Area*	3.67M / 3.67M [ 0% ] [ 3 ]	12K / 75K [ 84% ] [ 1 ]	→	<table><tr><th>Retention Area*</th></tr><tr><td>0 / 0 [ 0% ] [ 3 ]</td></tr><tr><td>0 / 0 [ 0% ] [ 1 ]</td></tr></table> <p>v9</p>	Retention Area*	0 / 0 [ 0% ] [ 3 ]	0 / 0 [ 0% ] [ 1 ]
Retention Area*								
3.67M / 3.67M [ 0% ] [ 3 ]								
12K / 75K [ 84% ] [ 1 ]								
Retention Area*								
0 / 0 [ 0% ] [ 3 ]								
0 / 0 [ 0% ] [ 1 ]								

In our example for v8 the compressed size, uncompressed size and compression ratio is still calculated. The data can be interpreted as 12K of compressed size, 75K of uncompressed size. The compression ratio is 84%. And there is 1 file in the Retention Area.

While for v9, the compressed size, uncompressed size and compression ratio are not calculated so the value is now 0. The total number of files is still displayed, because the files are still moved to the Retention Area.

## Overview (v9.3)

Starting with v9.3 or above, Office 365 will be changed to Microsoft 365 since the name change has already been implemented by Microsoft. With this the user interface for Microsoft 365 backup sets of AhsayCBS, AhsayOBM and AhsayACB has undergone a major revamp.

Authentication that will be used when creating a Microsoft 365 backup set is Modern Authentication. Basic and Hybrid Authentication have been removed to comply with Microsoft's product roadmap for Microsoft 365. Aside from this, backup and restore of Teams is now supported.

Here are the changes in the new version:

## AhsayCBS Backup Client Settings

### For AhsayOBM User

General
Backup Client Settings
Contact
User Group
Authentication
Mobile Backup

Settings of the client backup agent 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 - QNAP	<input type="checkbox"/> NAS - Synology
<input checked="" type="checkbox"/> Mobile (max. 10)	<input checked="" type="checkbox"/> Continuous Data Protection
<input type="checkbox"/> Volume Shadow Copy	<input type="checkbox"/> In-File Delta (Only apply to v8 or before)
<input type="checkbox"/> OpenDirect / Granular Restore <input type="text" value="0"/>	<input checked="" type="checkbox"/> Microsoft 365 Backup <input type="text" value="5"/>
<input type="checkbox"/> MariaDB Database Server	<input checked="" type="checkbox"/> Deduplication

**Note:** The number of Microsoft 365 add-on modules = "5" is an arbitrary example.

## For AhsayACB User

General

Backup Client Settings

Contact

User Group

Authentication

Mobile Backup


Settings of the client backup agent for this user.


Backup Client


☐ AhsayOBM User


☒ AhsayACB User


Add-on Modules


☐  Windows System Backup


☒  Mobile (max. 10)


☐  Volume Shadow Copy


☐  OpenDirect / Granular Restore

☒  Deduplication

☐  Lotus Notes

☒  Continuous Data Protection

☐  In-File Delta (Only apply to v8 or before)

☒  Microsoft 365 Backup

**Note:** Microsoft 365 Backup on AhsayACB limit still remains at maximum: 2.

## Microsoft 365 backup set creation

In v9.3, the fields for Microsoft 365 credentials have been removed. This eliminates having to provide the login credentials for Microsoft 365 twice. Unlike in the old version, you have to provide the credentials first before clicking the Test button, afterwards when you login to Microsoft you need to provide your credentials again.

### AhsayCBS

Pre-v9.3

## Create Backup Set

### General

Name

Backup set type

Office 365 Backup

Run on

☒ Server ☐ Client

### Office 365

Username

Account password

App password  
( Required if Multi-Factor Authentication is enforced )

Region

Global

☐ Access the Internet through Proxy

Test

[Sign up for Office 365 Backup](#)

v9.3 and above

## Create Backup Set

### General

Name

Backup set type

Microsoft 365 Backup

Run on

☒ Server ☐ Client

### Microsoft 365

Backup scope

☒ Entire organization  
☐ This Microsoft 365 user only

Region

Global

☐ Access the Internet through Proxy

Test

[Sign up for Microsoft 365 Backup](#)


## AhsayOBM

Pre-v9.3

### Create Backup Set

Name

Backup set type  

 Office 365 Backup ▼

Username

Account password

App password  
(Required if Multi-Factor Authentication is enforced)

Region  

Global ▼

☐ Access the Internet through proxy


Test

v9.3 and above

### Create Backup Set

Name

Backup set type  

 Microsoft 365 Backup ▼

Backup Scope  

☒ Entire Organization  
☐ This Microsoft 365 user only

Region  

Global ▼

☐ Access the Internet through proxy

Test


## AhsayACB

Pre-v9.3

### Create Backup Set

Name

Backup set type  

 Office 365 Backup ▼

Username

Account password

App password  
(Required if Multi-Factor Authentication is enforced)

Region  

Global ▼


☐ Access the Internet through proxy

v9.3 and above

### Create Backup Set

Name

Backup set type  

 Microsoft 365 Backup ▼

Region  

Global ▼

☐ Access the Internet through proxy

## Backup Source selection

The user interface for backup source selection for v9.3 has been changed to show all data types that are available for backup. There is an option to select all or specific items for backup in Teams, SharePoint Sites and Public Folders. The list will be loaded per data type selected, unlike in the old version all the data types are loaded in the Advanced Backup Source window.

### AhsayCBS

Pre-v9.3

### Backup Source

Select the items and folders that you want to backup

☐ Outlook

☐ OneDrive

☐ Personal Site

☐ Public Folders

☐ Site Collections

#### Unlicensed Users

Users within the Office 365 organization who does not possess valid license may still contain data to backup (e.g. Specified type accounts like room mailbox and shared mailbox, license removed from licensed account). By using this option, you can choose not to include any unlicensed users.

☐ Do not include unlicensed users

[I would like to choose the items to backup](#)

Or when “I would like to choose the items to backup” link is clicked.

### Advanced Backup Source

View Explorer

☐ Office 365

☒ Users

☐ Public Folders

☐ Site Collections

Subject	Date Modified	Size
---------	---------------	------

✓ X ?

## AhsayCBS

v9.3 and above











Run on Server AhsayOBM Backup Source selection with “Entire organization” selected as Backup scope

### Backup Source

#### Select Microsoft 365 user(s) to backup

- ☒ All users
- ☐ Select Specific [Select](#)
- ☐ Auto-exclude any Microsoft 365 unlicensed user during backup






#### Select the data type that you want to backup which are owned by the selected user(s)

- ☒  Outlook ☒  OneDrive ☒  Personal Site ☒  Teams Chat
- ☒  Teams
- ☒ All teams groups
- ☐ Select Specific [Select](#)
- ☒  Group Mail ☒  Group Site ☒  Teams Channel
- ☒  SharePoint Sites
- ☒ All SharePoint sites excluding personal and group sites
- ☐ Select Specific [Select](#)
- ☒  Public Folders
- ☒ All public folders
- ☐ Select Specific [Select](#)

Run on Server AhsayOBM Backup Source selection with “This Microsoft 365 user only” selected as Backup scope or for AhsayACB Backup Source selection

### Backup Source

#### Select the items and folders that you want to backup

- ☒  Outlook
- ☒  OneDrive
- ☒  Personal Site
- ☒  Public Folders
- ☐  Teams Chat



## AhsayOBM Backup Source selection

Pre-v9.3

Backup Source

Select the items and folders that you want to backup

☐ Outlook  
☐ OneDrive  
☐ Personal Site  
☐ Public Folders  
☐ Site Collections

### Unlicensed Users

Users within the Office 365 organization who does not possess valid license may still contain data to backup (e.g. Specified type accounts like room mailbox and shared mailbox, license removed from licensed account). By using this option, you can choose not to include any unlicensed users.

☐ Do not include unlicensed users

[I would like to choose the items to backup](#)

Or when “I would like to choose the items to backup” link is clicked.

Advanced Backup Source

Folders	Name	Date modified	Size
Office 365	test new post	12/17/2018 17:45	3KB
Users	Re: test new post	03/01/2019 11:03	4KB
Public Folders	123456557676789...	03/01/2019 16:32	2KB
Site Collections	URL	04/05/2019 12:25	5KB
	test cat	10/10/2019 11:24	991KB
	Test_Cherry	04/05/2019 12:28	2KB
	test cherry	04/05/2019 12:28	2KB
	Test with attachment	04/05/2019 15:48	9MB
	Test with picture	04/05/2019 12:28	35KB
	Test1	04/05/2019 12:28	4KB
		04/05/2019 12:28	2KB
	Calendar test	04/05/2019 12:29	4KB
	Encrypted	04/05/2019 12:29	2KB
	Plain text only	04/05/2019 12:29	2KB
	test special charact...	04/05/2019 12:29	3KB
	Test Diff Language	04/05/2019 12:29	2KB
	Δοκιμάστε την ελλη...	04/05/2019 12:29	3KB
	Test attached zip file	04/05/2019 12:29	1MB
	Test Excel attachm...	04/05/2019 12:29	31KB
	Test word attachm...	04/05/2019 12:29	2KB
	测试希腊语 languan...	04/05/2019 12:29	2KB
	テストギリシャ語	04/05/2019 12:29	63KB

☒ Show items
 

Items per page 50
 Page 1 / 16

## AhsayOBM Backup Source selection

v9.3 and above

“Entire organization” selected as Backup scope

### Backup Source





Select Microsoft 365 user(s) to backup


☒ All users

☐ Select Specific [Select](#)

☐ Auto-exclude any Microsoft 365 unlicensed user during backup




Select the data type that you want to backup which are owned by the selected user(s)


☒  Outlook ☒  OneDrive ☒  Personal Site ☒  Teams Chat

☒  Teams

☒ All teams groups


☐ Select Specific [Select](#)

☒  Group Mail ☒  Group Site ☒  Teams Channel

☒  SharePoint Sites

☒ All SharePoint sites excluding personal and group sites

☐ Select Specific [Select](#)

☒  Public Folders


☒ All public folders


☐ Select Specific [Select](#)


“This Microsoft 365 user only” selected as Backup scope


### Backup Source


Select the items and folders that you want to backup

☒  Outlook

☒  OneDrive

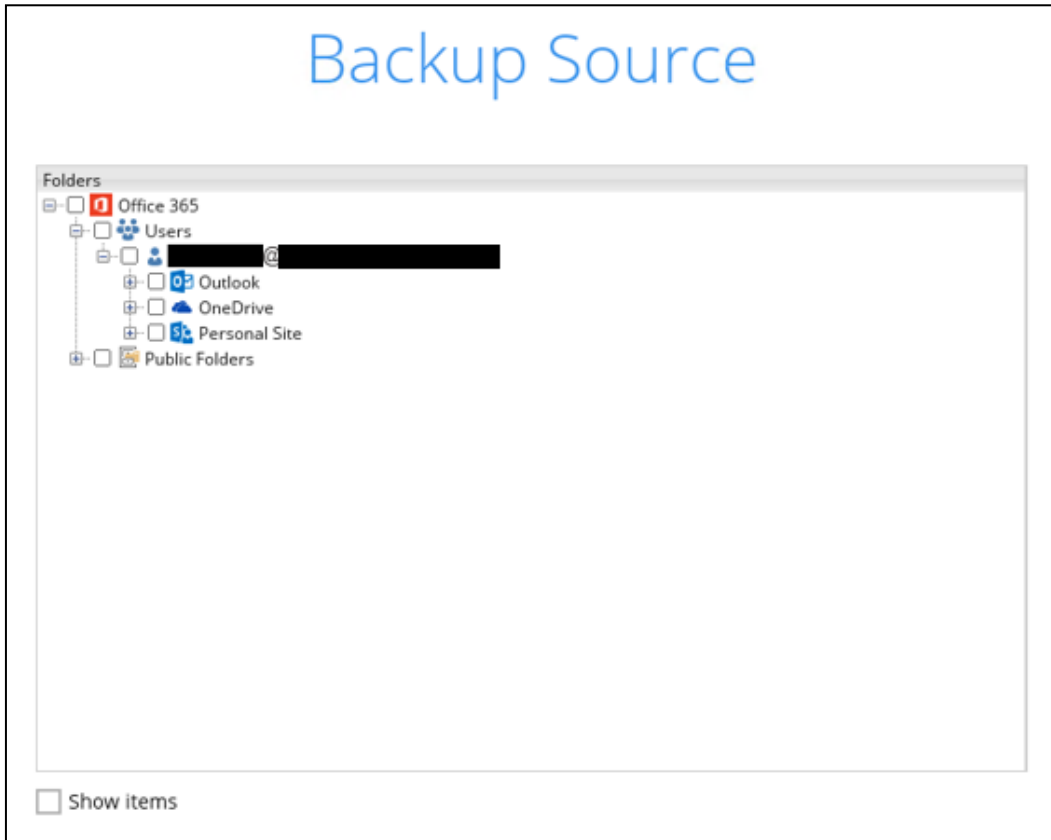
☒  Personal Site

☒  Public Folders

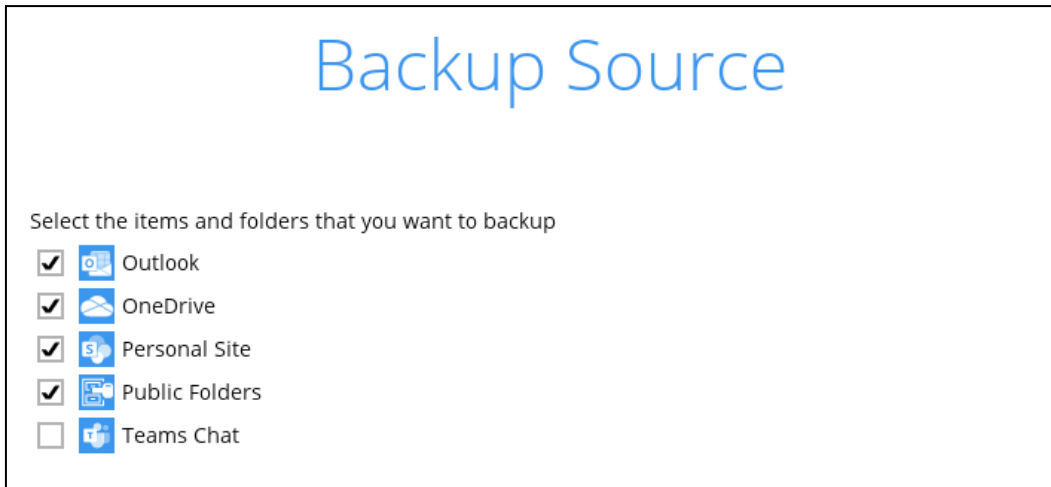
☒  Teams Chat

## AhsayACB Backup Source selection

Pre-v9.3



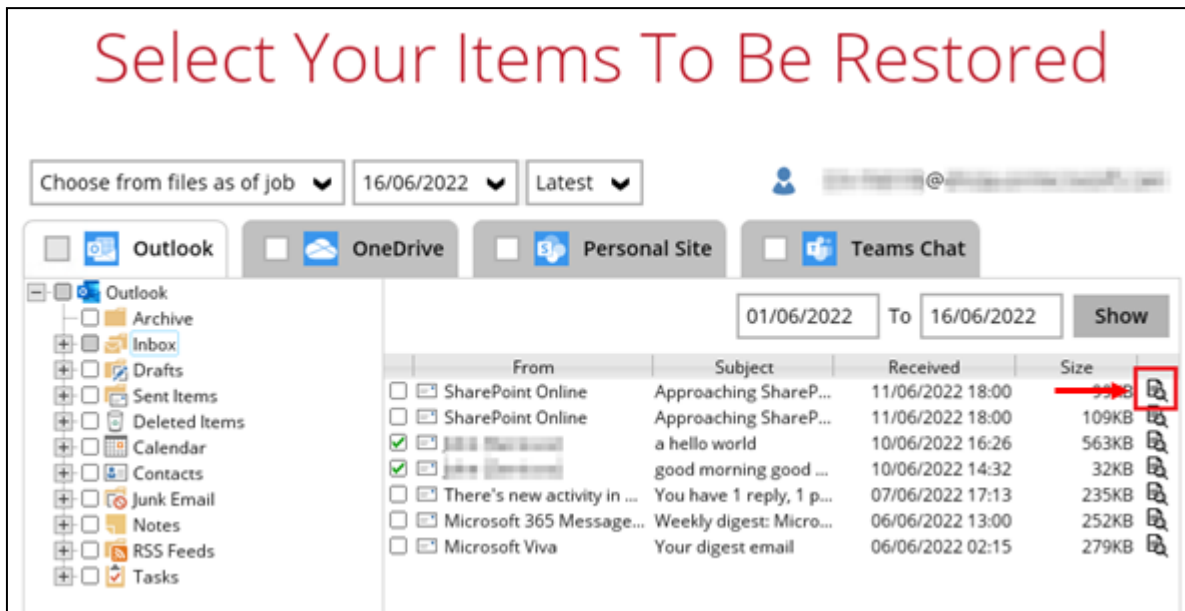
v9.3 and above



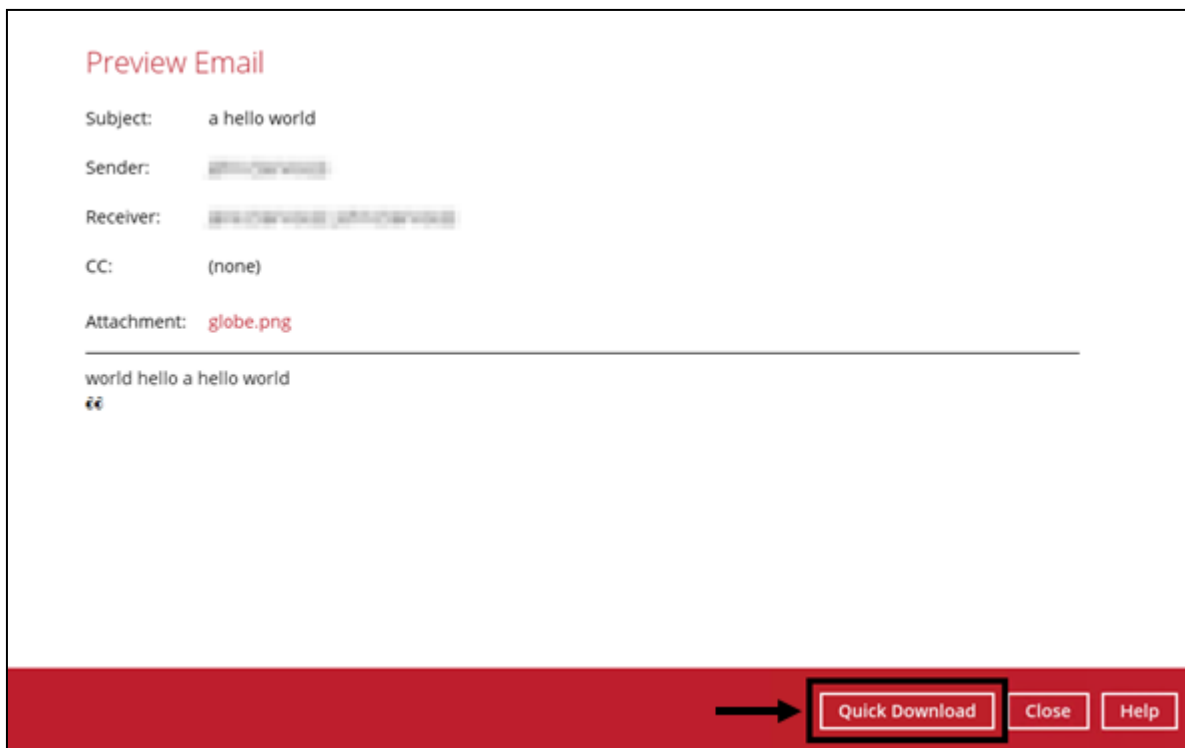
## Restoring M365 Backup Set

In v9.3, a preview and download function have been added where you can check the item first before restoring it.

### Preview function



The preview function allows you to view the content of the item. Aside from that you can download and restore it from the Preview Email by clicking the **Quick Download** button.



## Datasheet

If the email has an attachment, you can download just the attachment by clicking on the attachment itself.

### Preview Email

Subject: a hello world

Sender: [redacted]

Receiver: [redacted] [redacted]

CC: (none)

Attachment: globe.png

---

world hello a hello world

📧

### Download function

While the download function allows you to directly download and restore the item.

## Select Your Items To Be Restored

Choose from files as of job ▼

09/06/2022 ▼

Latest ▼

[redacted]@ahsay.com

☐ Outlook

☒ OneDrive

☐ Personal Site

☐ Teams Chat

☒ OneDrive

☒ Microsoft Teams Chat Files

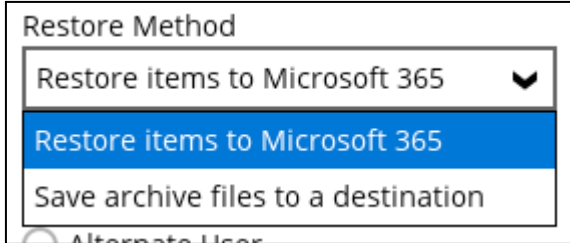
☒ backupsamples

dd/MM/yyyy To dd/MM/yyyy Show

Name	Date modified	Size	
<input checked="" type="checkbox"/> [redacted].xlsx	25/01/2019 14:16	43KB	<span style="border: 1px solid red; padding: 2px;">↓</span>
<input checked="" type="checkbox"/> Document 2.docx	14/01/2019 10:56	11KB	
<input checked="" type="checkbox"/> guide_cbs_admin_draft.docx	14/01/2019 10:42	22MB	
<input checked="" type="checkbox"/> Book 2.xlsx	14/01/2019 09:52	8KB	
<input checked="" type="checkbox"/> [redacted].docx	16/07/2018 11:35	11KB	

## Restore Method

Another feature that has been added is the Restore Method. Items can be restored in two ways, either **Restore items to Microsoft 365** or **Save archive files to a destination**. The restore location that will be available will depend on the data type and restore method selected.



For Restore items to Microsoft 365, there are three restore locations available:

- ▶ Original
- ▶ Alternate
- ▶ Alternate Microsoft 365 organization

Data Type	AhsayACB	AhsayOBM
Users	Original User Alternate Microsoft 365 organization	Original User Alternate User Alternate Microsoft 365 organization
Teams	n/a	Original Team Alternate Team Alternate Microsoft 365 organization
SharePoint Sites	n/a	Original Site Alternate Site Alternate Microsoft 365 organization
Public Folders	Original Public Folder Alternate Public Folder Alternate Microsoft 365 organization	Original Public Folder Alternate Public Folder Alternate Microsoft 365 organization

# Datasheet

While for Save archive files to a destination, restore location available depends on the data type and backup client:

- ▶ Local
- ▶ OneDrive of Original Microsoft 365 organization
- ▶ OneDrive of Alternate Microsoft 365 organization

Data Type	AhsayACB	AhsayOBM
Users	Local	Local OneDrive of Original Microsoft 365 organization OneDrive of Alternate Microsoft 365 organization
Teams	n/a	Local OneDrive of Original Microsoft 365 organization OneDrive of Alternate Microsoft 365 organization
SharePoint Sites	n/a	Local
Public Folders	Local	Local

Here are examples of the restore location for the different data types:

## AhsayACB

Data Type	Restore items to Microsoft 365	Save archive files to a destination
Users	<div>Restore Location</div> <div> <input checked="" type="radio"/> Original User           <input type="radio"/> Alternate Microsoft 365 organization         </div>	<div>Restore Location</div> <div>Local ▼</div>
Public Folders	<div>Restore Location</div> <div> <input checked="" type="radio"/> Original Public Folder           <input type="radio"/> Alternate Public Folder           <input type="radio"/> Alternate Microsoft 365 organization         </div>	<div>Restore Location</div> <div>Local ▼</div>

## AhsayOBM

Data Type	Restore items to Microsoft 365	Save archive files to a destination
<b>Users</b>	<div>Restore Location</div> <div> <input checked="" type="radio"/> Original User           <input type="radio"/> Alternate User           <input type="radio"/> Alternate Microsoft 365 organization         </div>	<div>Restore Location</div> <div> <div>Local ▼</div> <div>Local</div> <div>OneDrive of Original Microsoft 365 organization</div> <div>OneDrive of Alternate Microsoft 365 organization</div> </div>
<b>Teams</b>	<div>Restore Location</div> <div> <input checked="" type="radio"/> Original Team           <input type="radio"/> Alternate Team           <input type="radio"/> Alternate Microsoft 365 organization         </div>	<div>Restore Location</div> <div> <div>Local ▼</div> <div>Local</div> <div>OneDrive of Original Microsoft 365 organization</div> <div>OneDrive of Alternate Microsoft 365 organization</div> </div>
<b>SharePoint Sites</b>	<div>Restore Location</div> <div> <input checked="" type="radio"/> Original Site           <input type="radio"/> Alternate Site           <input type="radio"/> Alternate Microsoft 365 organization         </div>	<div>Restore Location</div> <div> <div>Local ▼</div> </div>
<b>Public Folders</b>	<div>Restore Location</div> <div> <input checked="" type="radio"/> Original Public Folder           <input type="radio"/> Alternate Public Folder           <input type="radio"/> Alternate Microsoft 365 organization         </div>	<div>Restore Location</div> <div> <div>Local ▼</div> </div>



## Teams backup and restore

Backup and restore of Teams Group Mail, Group Site, Teams Channel and Teams Chat is now supported in v9.3.

### Backup Source

Select Microsoft 365 user(s) to backup

☒ All users

☐ Select Specific Select

☐ Auto-exclude any Microsoft 365 unlicensed user during backup

Select the data type that you want to backup which are owned by the selected user(s)

☒ Outlook ☒ OneDrive ☒ Personal Site ☒ Teams Chat

☒ Teams

☒ All teams groups

☐ Select Specific Select

☒ Group Mail ☒ Group Site ☒ Teams Channel

☒ SharePoint Sites

☒ All SharePoint sites excluding personal and group sites

☐ Select Specific Select

☒ Public Folders

☒ All public folders

☐ Select Specific Select

Previous Next Cancel Help

### Microsoft 365 Backup Set Source Selection UI on Run on Client vs CBS UI

AhsayOBM Run on Client Microsoft 365 Backup Sets upgraded to v9.3.2.0 or above will first need the Backup Set to be updated from the Client-side in order to migrate pre-existing path list. If this has not been done, the AhsayCBS UI view for the Backup Set will remain in the pre-v9.3 Microsoft 365 Backup Source selection UI. Once the path list has been updated, the new Microsoft 365 Backup Source selection UI will be displayed on the AhsayCBS web console. Refer to "[AhsayOBM Backup Source selection](#)" section for example screenshots.

## Overview (v9.5)

Starting with v9.5 or above, there will be two types of [Quota](#) available in the Quota settings.

- ▶ **Total Quota** – this is the new setting which is the total storage quota of all the destinations.
- ▶ **Per Destination Quota** – this is similar to the quota setting in AhsayCBS pre-9.5 version where you can specify the storage quota for specific destinations.

Aside from this, a [Recycle Bin](#) has been added for protection of the BAK (block) files stored in the Backup Set's destination. It allows the user to set the number of days BAK files that has been deleted due to Retention Policy or Data Integrity Check will be held under Recycle Bin as added protection. After upgrading to v9.5, this will be automatically enabled by default for existing backup sets. Which in turn may increase the storage space used by the backup set.

[Login Web Console](#) is another new feature which determines if a user will be allowed to login to the AhsayCBS user web console.

While for [Deduplication](#), the default “Auto” block size has been removed and replaced with two new block sizes.

A new checkbox has been added in the [Restore](#) window which is “Show backup job(s) outside retention”. This will allow the user to list all backup jobs even ones that are already beyond the retention period.

An [Exclude Filter](#) has been added to Microsoft 365 backup sets to allow users to create filters that will exclude certain folders from the backup.

New in [Branding](#), Certificates for QNAP may be added to personalize your qpkg installer.

For developers, APIs updated to handle Quota types, Deduplication block sizes, enable AUA and user Login Web Console Settings.

The new quota types can be found in the following sections:

### For AhsayACB User

General

Backup Client Settings

Contact

User Group

Authentication










Mobile Backup

Settings of the client backup agent for this user.

### Backup Client

☐ AhsayOBM User ☒ AhsayACB User



### Add-on Modules


<input type="checkbox"/>  Windows System Backup	<input type="checkbox"/>  Lotus Notes
<input checked="" type="checkbox"/>  Mobile (max. 10)	<input checked="" type="checkbox"/>  Continuous Data Protection
<input type="checkbox"/>  Volume Shadow Copy	<input type="checkbox"/>  In-File Delta (Only apply to v8 or before)
<input type="checkbox"/>  OpenDirect / Granular Restore <input type="text" value="0"/>	<input checked="" type="checkbox"/>  Microsoft 365 Backup <input type="text" value="10"/>
<input checked="" type="checkbox"/>  Deduplication	

### Quota

☐ Total Quota  
☒ Per Destination Quota

Unlimited storage space for the destination not shown in the following table



<input type="checkbox"/>	Destination	Quota
<input type="checkbox"/>	 AhsayCBS	<input type="text" value="50.0"/> <span>Gbytes</span>

(If preempted mode is enabled in policy settings, the quota settings are disabled)

## For AhsayOBM User

By default, Per Destination Quota is selected.

General
Backup Client Settings
Contact
User Group
Authentication
Mobile Backup

Settings of the client backup agent 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 - QNAP	<input type="checkbox"/> NAS - Synology
<input checked="" type="checkbox"/> Mobile (max. 10)	<input checked="" type="checkbox"/> Continuous Data Protection
<input type="checkbox"/> Volume Shadow Copy	<input type="checkbox"/> In-File Delta (Only apply to v8 or before)
<input type="checkbox"/> OpenDirect / Granular Restore <input type="text" value="0"/>	<input checked="" type="checkbox"/> Microsoft 365 Backup <input type="text" value="10"/>
<input type="checkbox"/> MariaDB Database Server	<input checked="" type="checkbox"/> Deduplication

### Quota

☐ Total Quota
☒ Per Destination Quota

Unlimited storage space for the destination not shown in the following table

<input type="checkbox"/>	Destination	Quota	
<input type="checkbox"/>	AhsayCBS	<input type="text" value="50.0"/>	Gbytes ▼

(If preempted mode is enabled in policy settings, the quota settings are disabled)

## Policy User Settings

**Shared Quota** is disabled by default. While Per Destination Quota is selected for the **User Quota**.

The screenshot displays the 'Policy User Settings' configuration window. On the left is a sidebar with navigation links: General, User Settings (highlighted), Backup Set Settings, GUI Settings, Default Values, Preempted Values, and Preempted Backup Sets. The main content area is divided into two sections. The top section, 'Quota limits calculation method', contains a 'Mode' section with two radio buttons: 'Compressed Size' (selected) and 'Uncompressed Size'. Below this is a 'Shared Quota' section with a slider control, which is highlighted by a red rectangle. The bottom section, 'User Quota', contains a 'Mode' section with 'Default' (selected) and 'Preempted' radio buttons. Below that is a 'Type' section with two radio buttons: 'Total Quota' and 'Per Destination Quota' (selected), which is also highlighted by a red rectangle. At the bottom of the 'User Quota' section are icons for adding (+) and deleting (-) entries, and a table with columns 'Destination' and 'Quota'. The table contains one entry for 'AhsayCBS' with a quota of '50.0' and a unit dropdown set to 'Mbytes'.

Destination	Quota	Unit
<input type="checkbox"/> AhsayCBS	50.0	Mbytes

### Shared Quota

If Total Quota is selected, the total destination storage quota will be shared by all users within the user group with a set maximum percentage for each user.

If Per Destination Quota is selected, the storage quota of each destination storage will be shared by all users within the user group with a set maximum percentage for each user.

### User Quota

If Total Quota is selected, the defined total destination storage quota will be the settings applied to newly created backup user.

If Per Destination Quota is selected, the defined storage quota of each destination storage will be the settings applied to the newly created backup user.

## Free Trial Options

This setting will be applied to all Trial users. By default, Per Destination Quota is selected with AhsayCBS as the destination storage with 50MB of storage space.

User Home

Free Trial Options

Run Direct

Windows Active Directory Integration


Free Trial Registration

☒ Enable Free Trial Registration


Quota


☐ Total Quota


☒ Per Destination Quota


<input type="checkbox"/>	Destination	Quota
<input type="checkbox"/>	 AhsayCBS	50.0 Mbytes

Add-on Modules

☐  Microsoft Exchange Server

☐  Microsoft SQL Server

☐  MySQL Database Server

☐  Oracle Database Server

## Recycle Bin

The Recycle Bin is another new feature in v9.5. Backup files are deleted based on Retention Policy settings or during Data Integrity Check. Once deleted, there is no way to retrieve the backup files. Recycle Bin ensures that deleted backup files are kept for a specified period. This feature is for protection of the BAK (block) files stored in the Backup Set's destination.

Highlights:

- ▶ Data in the Recycle Bin will consume Quota.
- ▶ The Recycle Bin does not move the data in another location within the storage, instead the index tracks the xxxxxx.bak files and the remaining time in the Recycle Bin.
- ▶ When disabled, if there are already deleted files it will not automatically delete the data inside the Recycle Bin, the data will only be removed if the following operations are run: Backup, Data Integrity Check, Space Freeing Up and Delete Backup Data.
- ▶ Recycle Bin cleanup is done at the start of the backup job process. You can find action taken by reviewing the report.

Downloading server file list...	16/09/2022 15:54:20
Skip download index since local index "C:\Users\Administrator\temp\1662701230613\OBS@1662701265536\index" is lat...	16/09/2022 15:54:20
Deleting out of retention period recycled files...	16/09/2022 15:54:20
Delete out of retention period recycled files result - Size: 496 B, File Count: 2	16/09/2022 15:54:20
Deleting out of retention period recycled files... Completed	16/09/2022 15:54:20
Downloading server file list... Completed	16/09/2022 15:54:20
Contact your service provider to enable [Volume Shadow Copy] support	16/09/2022 15:54:21
Reading backup source from hard disk...	16/09/2022 15:54:21
Getting all files which have been moved...	16/09/2022 15:54:22
Getting all files which have been moved... Completed	16/09/2022 15:54:22
Reading backup source from hard disk... Completed	16/09/2022 15:54:22

- ▶ Recovering from Recycle Bin requires reverting the index.
- ▶ Viewing Recycle Bin contents is unavailable.
- ▶ Recycle Bin size can be found under the user's Statistics Summary view, replacing the Retention Area column.

User Profile

Backup Set

Settings

Report

Statistics

Effective Policy

Usage

Summary





Summary for This User

\* Unit (Storage): Compressed Size / Uncompressed Size [Ratio] [Total No. of Files]

\*\* Unit (Data Transfer): Compressed Size [Total No. of Files]

\*\*\* Unit (Deduplication): Uncompressed Dedupe Size / Uncompressed Original Size [Deduplication Ratio]

(^) Backup Set completely migrated from v6

Backup Set	Destination	Data Area*	Recycle Bin	Total Upload**	Total Restore**	Dedupe Saving***
 BackupSet-1	 AhsayCBS	832 / 1.87 K [ 57% ] [ 4 ]	31.84 K [ 2 ]	832 [ 4 ]	0 [ 0 ]	0
 BackupSet-2	 AhsayCBS	0 / 0 [ 0% ] [ 0 ]	0 [ 0 ]	0 [ 0 ]	0 [ 0 ]	0



Here are the sections where the Recycle Bin settings can be configured:

## AhsayCBS

### Backup Set Settings

Recycle Bin is enabled by default set for 7 days.

The screenshot displays the 'Backup Set Settings' window in AhsayCBS. On the left is a sidebar with navigation options: General, Source, Backup Schedule, Continuous Backup, Destination, Deduplication, Retention Policy, Command Line Tool, Reminder, Bandwidth Control, IP Allowed for Restore, and Others (highlighted). The main content area is divided into several sections. At the top, there is a checkbox for 'Support of opening backup data directly without restoration'. Below this is the 'Compressions' section with a dropdown menu set to 'Fast with optimization for local'. The 'Encryption' section follows, stating that the backup user password is used as the encrypting key, and lists details: Encrypted key (masked), Algorithm (AES), Method (CBC), and Key length (256), with a 'Recover Encryption Key' button. The 'Recycle Bin' section at the bottom is highlighted with a red border; it includes a toggle switch (currently on), the text 'Move the file to the Recycle Bin when remove file from Retention Policy or DIC', and a dropdown menu set to '7' days. The window has a standard title bar and a footer with 'X' and '?' icons.

General

Source

Backup Schedule

Continuous Backup

Destination

Deduplication

Retention Policy

Command Line Tool

Reminder

Bandwidth Control

IP Allowed for Restore

Others

☐ Support of opening backup data directly without restoration

**Compressions**

Select compression type

Fast with optimization for local

**Encryption**

Backup user password is used as the encrypting key since "User Password" encryption type has been applied to this backup set

Encrypting key \*\*\*\*\*

Algorithm AES

Method CBC

Key length 256

Recover Encryption Key

**Recycle Bin**

Move the file to the Recycle Bin when remove file from Retention Policy or DIC

Keep the deleted files for

7 day(s)

Recycle Bin is enabled by default.

Recycle Bin is enabled by default.

**General** | Source | Backup Schedule | Continuous Backup | Destination | Deduplication

User Settings | Retention Policy | Command Line Tool | Reminder | Bandwidth Control | IP Allowed for Restore | Others

---

☐ Name Applied Modules

☐ Default Granular Restore settings Lotus.Lotus. [Icons]

### Compressions

[+][Trash]

☐ Name Applied Modules

☐ Default compressions settings [Icons]

### Encryption

[+][Trash]

☐ Name Applied Modules

☐ Default encryption settings [Icons]

### Recycle Bin

[+][Trash]




☐ Name Applied Modules

☐ Default recycle bin settings [Icons]

## Policy Preempted Values Settings

Recycle Bin is not enabled by default.

General	Source	Backup Schedule	Continuous Backup	Destination	Deduplication	Retention Policy
User Settings	Command Line Tool	Reminder	Bandwidth Control	IP Allowed for Restore	Others	
Backup Set Settings	Follow Link					<input type="checkbox"/>
GUI Settings	Volume Shadow Copy					<input type="checkbox"/>
Default Values	File Permissions					<input type="checkbox"/>
Preempted Values	Archived Log Deletion					<input type="checkbox"/>
Preempted Backup Sets	Compressions					<input type="checkbox"/>
	Recycle Bin					<input type="checkbox"/>



## AhsayOBM

### Backup Set Settings

**BackupSet**

- General
- Source
- Backup Schedule
- Continuous Backup
- Destination
- Deduplication
- Retention Policy
- Command Line Tool
- Reminder
- Bandwidth Control
- Others**
- [Hide advanced settings](#)

**OpenDirect**

Support of opening backup data directly without restoration

Off ☐

**Compressions**

Select compression type

Fast with optimization for local ▼

**Encryption**

Encryption key: ••••••

[Copy to clipboard](#) [Unmask encryption key](#)

Algorithm: AES

Method: CBC

Key length: 256 bits

**Recycle Bin**

Move the file to the Recycle Bin when remove file from Retention Policy or DIC

On ☒

Keep the deleted files for

7 ▼ day(s)

Delete this backup set

Save Cancel Help

**Note:** After upgrade to v9.5, existing Backup sets will have the feature enabled.

## AhsayACB

### Backup Set Settings

**BackupSet**

General

Source

Backup Schedule

Destination

Reminder

**Others**

**OpenDirect**

Support of opening backup data directly without restoration

Off ☐

**Compressions**

Select compression type

Fast with optimization for local ▼

**Encryption**

Encryption key •••••

[Copy to clipboard](#) [Unmask encryption key](#)

Algorithm AES

Method CBC

Key length 256 bits

**Recycle Bin**

Move the file to the Recycle Bin when remove file from Retention Policy or DIC

On ☒

Keep the deleted files for

7 ▼ day(s)

Delete this backup set

Save Cancel Help

**Note:** After upgrade to v9.5, existing Backup Sets will have the feature enabled.

### Login Web Console

The Login Web Console is also new in v9.5. This policy setting allows administrators to control who will be allowed to login to the AhsayCBS user web console.

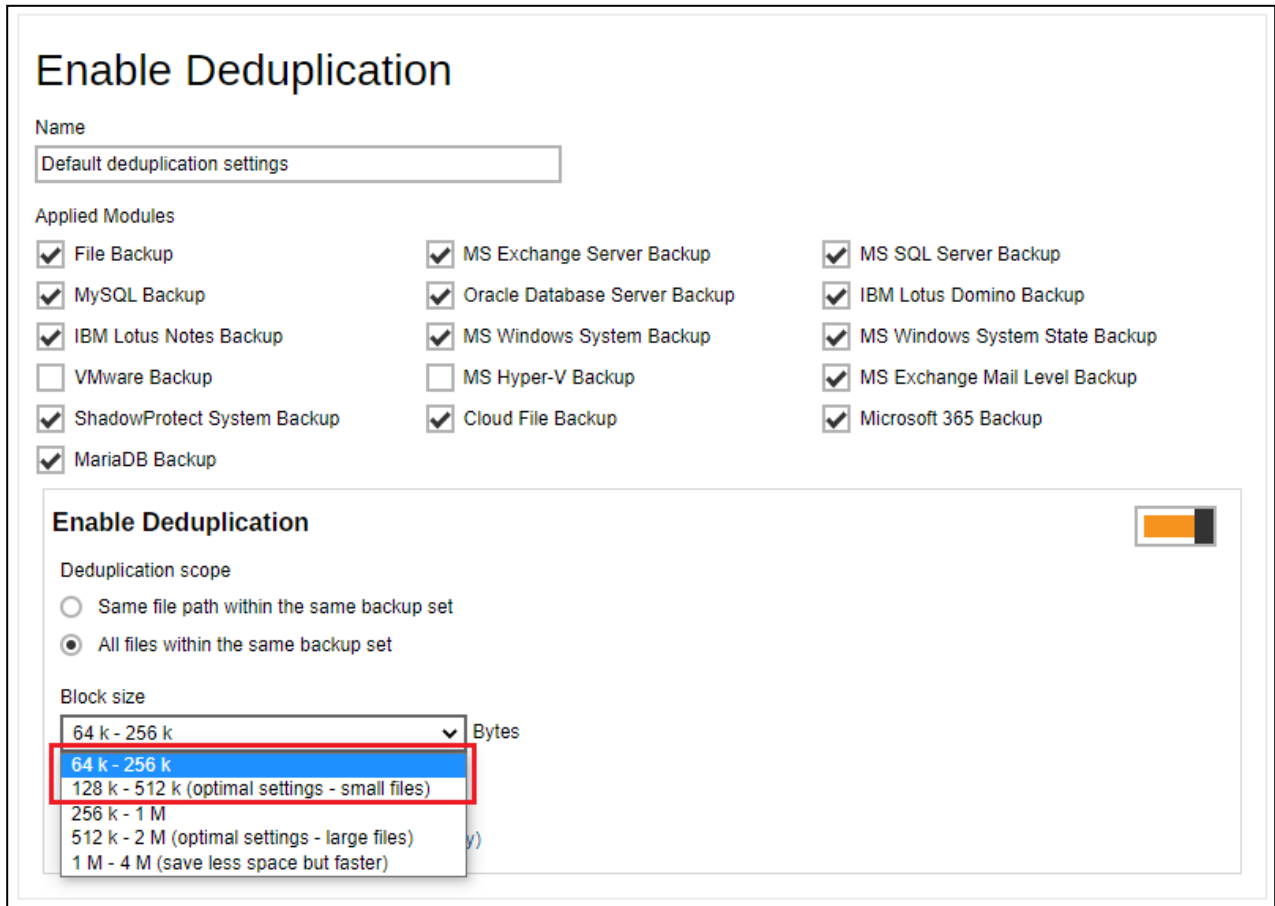
Users will only be allowed to login to the AhsayCBS user web console if **Login Web Console** is enabled and **Allow login web console** checkbox is ticked.

A screenshot of a policy configuration box titled "Login Web Console". Inside the box, there is a checkbox labeled "Allow login web console" which is checked. In the top right corner of the box, there is a toggle switch that is currently in the "on" position, indicated by an orange bar.

If there are several policies assigned to the user, there are conditions that needs to be considered to determine which policy will take effect. For more information regarding the conditions please refer to the discussion regarding Login Web Console in the [AhsayCBS Administrator's Guide](#).

## Deduplication

There are changes in the available block size in v9.5. **Auto** has been removed from the choices and two new block size range has been added which are: **64 k – 256 k** and **128 k – 512 k**.




**Enable Deduplication**

Name  
Default deduplication settings

Applied Modules

<input checked="" type="checkbox"/> File Backup	<input checked="" type="checkbox"/> MS Exchange Server Backup	<input checked="" type="checkbox"/> MS SQL Server Backup
<input checked="" type="checkbox"/> MySQL Backup	<input checked="" type="checkbox"/> Oracle Database Server Backup	<input checked="" type="checkbox"/> IBM Lotus Domino Backup
<input checked="" type="checkbox"/> IBM Lotus Notes Backup	<input checked="" type="checkbox"/> MS Windows System Backup	<input checked="" type="checkbox"/> MS Windows System State Backup
<input type="checkbox"/> VMware Backup	<input type="checkbox"/> MS Hyper-V Backup	<input checked="" type="checkbox"/> MS Exchange Mail Level Backup
<input checked="" type="checkbox"/> ShadowProtect System Backup	<input checked="" type="checkbox"/> Cloud File Backup	<input checked="" type="checkbox"/> Microsoft 365 Backup
<input checked="" type="checkbox"/> MariaDB Backup		


**Enable Deduplication** 

Deduplication scope

☐ Same file path within the same backup set

☒ All files within the same backup set

Block size

64 k - 256 k  Bytes

64 k - 256 k

128 k - 512 k (optimal settings - small files)

256 k - 1 M

512 k - 2 M (optimal settings - large files)

1 M - 4 M (save less space but faster)

Here are the default policy settings:

- ▶ For newly installed AhsayCBS, default policy is 64k – 256k (optimal settings).
- ▶ For AhsayCBS v9 upgraded to the latest version with “Auto” selected for the block size, the default block size will be changed to 512k – 2M.
- ▶ For AhsayCBS pre-v9 upgraded to the latest version, no matter what is selected for the In-File Delta block size, it will be changed to 64k – 256k (optimal settings).



For AhsayCBS v9.0 – 9.3 upgraded to v9.5, It is suggested to revise the Deduplication default policy to the new optimized setting (64k – 256k).

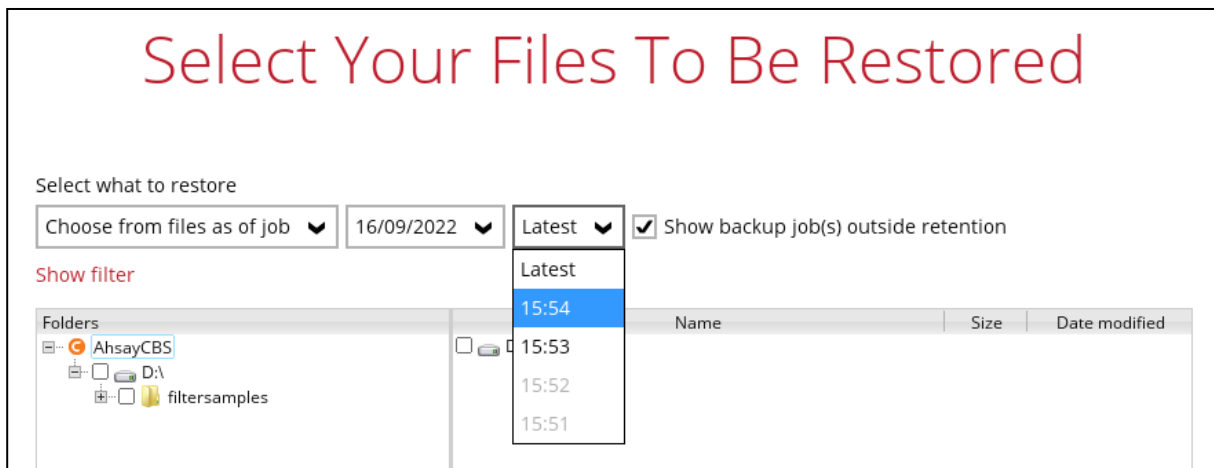
## Restore

For Restore, there is a new check box added which is “Show backup job(s) outside retention”. This will display all backup jobs, including deleted ones.

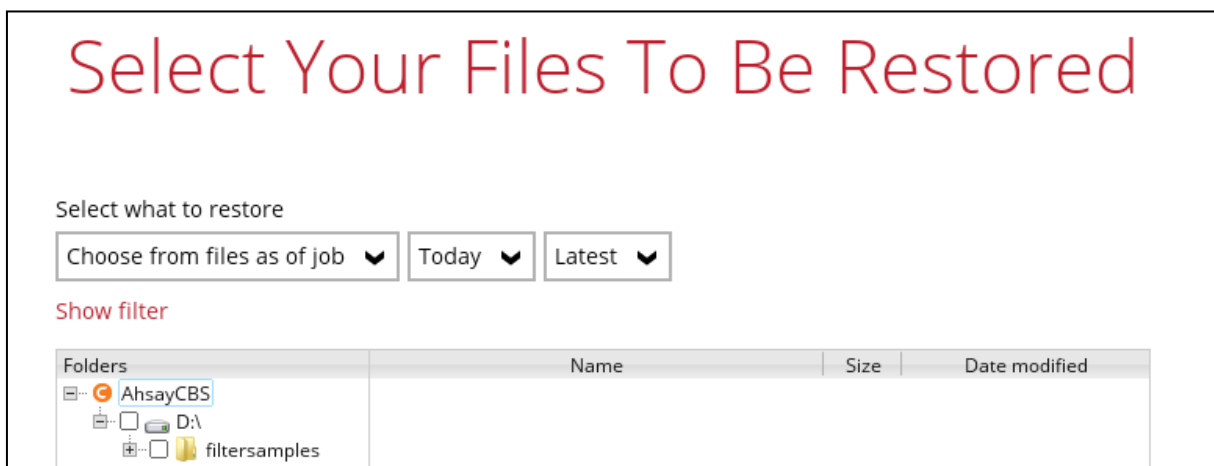
This means that before v9.5, backup job(s) that are already past the retention period are hidden to users, but with this new checkbox all backup jobs will be displayed if the “Show backup job(s) outside retention” is ticked even if the backup job(s) are not available. Be careful in selecting these backup jobs as the files may not be available for restore if they have already been deleted.

### v9.5

Backup job(s) that are past the retention period are greyed out.



### Pre-v9.5





## Exclude Filter

The Exclude Filter is new for Microsoft 365 backups in v9.5. This will allow users to create a filter that will exclude certain folders from being included in the backup.

The Exclude Filter will look like this in the following:


### AhsayCBS

The screenshot shows the AhsayCBS configuration window. On the left is a sidebar with tabs: General, Source (selected), Backup Schedule, Destination, Deduplication, Retention Policy, Command Line Tool, Reminder, Bandwidth Control, IP Allowed for Restore, and Others. The main area is titled 'Select the items and folders that you want to backup' and contains a list of items with checkboxes: Outlook, OneDrive, Personal Site, Public Folders, and Teams Chat, all of which are checked. Below this list is a section titled 'Filter (Exclude)' which is highlighted with a red box. This section contains the text 'Apply this filter to all folders in' followed by a toggle switch that is currently turned on (orange). Below the toggle are icons for adding (+) and deleting (-) filters, and a text input field labeled 'Name'.

### AhsayOBM

The screenshot shows the AhsayOBM configuration window. On the left is a sidebar with tabs: General, Source (selected), Backup Schedule, Destination, and a link for 'Show advanced settings'. The main area is titled 'Backup Source' and contains the text 'Select the items and folders that you want to backup' followed by a list of items with checkboxes: Outlook, OneDrive, Personal Site, Public Folders, and Teams Chat, all of which are checked. Below this list is a note: 'In "This Microsoft user only" backup scope, files received by the user in Teams Chats are NOT backed up'. At the bottom of the main area is a section titled 'Filter (Exclude)' which is highlighted with a red box. This section contains the text 'Apply filters to the backup source' followed by a toggle switch that is currently turned off (grey) and labeled 'off'.

## AhsayACB

 BackupSet-2

General

Source

Backup Schedule

Destination

Reminder

Others

### Backup Source

Select the items and folders that you want to backup

- ☐ Outlook
- ☐ OneDrive
- ☐ Personal Site
- ☐ Public Folders
- ☒ Teams Chat

In "This Microsoft user only" backup scope, files received by the user in Teams Chats are NOT backed up".

#### Filter (Exclude)

Apply filters to the backup source

off ☐


Once enabled, click  to add the filter.

### Filter (Exclude)

Apply filters to the backup source

On ☒

Existing filters

 Add new filter

This is how the Exclude Filter screen will look like:

AhsayCBS

## Filter (Exclude)

**Name**

**Match folder names by**

☒ Simple comparison starts with ▼

☐ Regular expression (UNIX-style)

☐ Standard Folder in Mailbox

**Matching pattern**

+
✖

☐
☒ Pattern

**How to Apply This Filter**

Apply this filter to all folders in

 Browse

AhsayOBM/AhsayACB

## New Backup Filter (Exclude)

**Name**

**Match folder names by**

☒ Simple comparison ends with ▼

☐ Regular expression (UNIX-style)

☐ Standard Folder in Mailbox

**Existing patterns to match**

☒  ✖

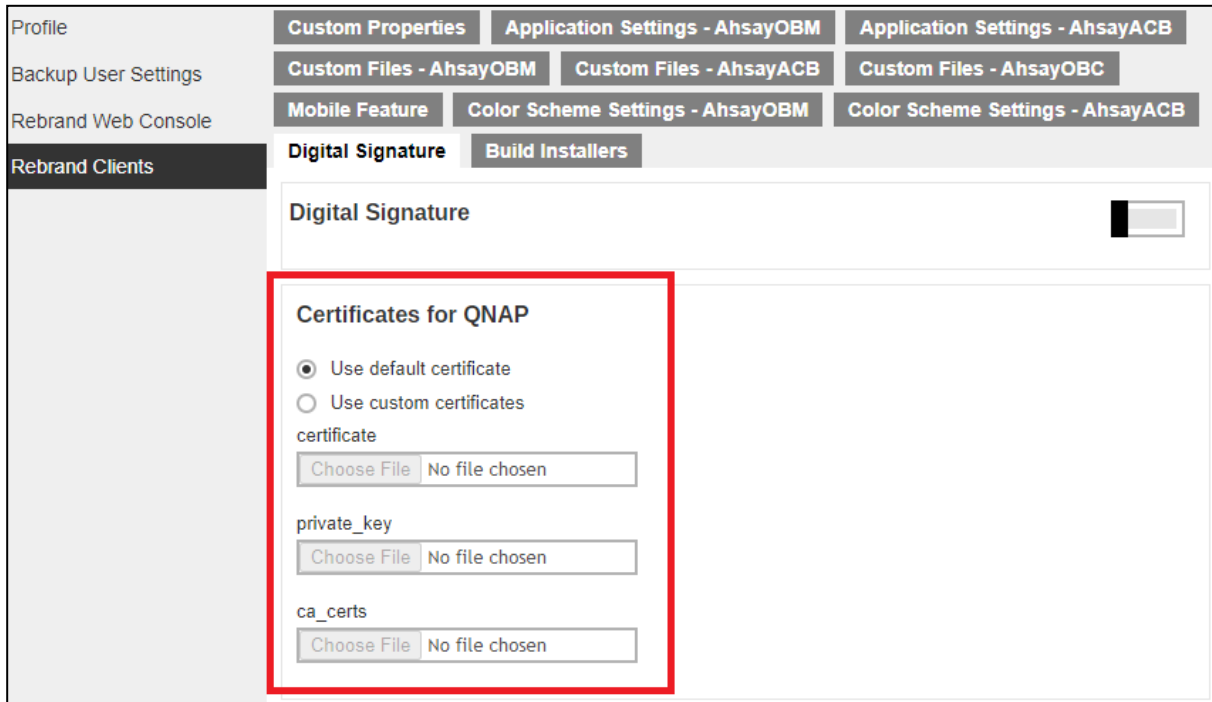
Add

**Apply this filter to all folders in**

 Browse

## Branding

Added under System Settings > Basic > Administrative Access > %system user% >Rebuild Clients > Digital Signature, is the **Certificates for QNAP**.



The screenshot shows the AhsayCBS interface with a sidebar on the left containing 'Profile', 'Backup User Settings', 'Rebrand Web Console', and 'Rebrand Clients'. The main area has tabs for 'Digital Signature' and 'Build Installers'. A modal dialog titled 'Certificates for QNAP' is open, featuring two radio buttons: 'Use default certificate' (selected) and 'Use custom certificates'. Below these are three sections: 'certificate', 'private\_key', and 'ca\_certs', each with a 'Choose File' button and a 'No file chosen' status.

In this interface, you have a choice to use the default Ahsay digital QNAP signature or upload your own QNAP signing certificate (in PEM format) for personalized branded experience.

**Note:** The QNAP certificate is not a SSL Certificate, but a Code Signing certificate signed by a trusted CA.

## Behind the scenes AhsayCBS Branding behavior changes:

### Upgraded AhsayCBS

Upon upgrade from AhsayCBS pre-v9.5, AhsayCBS v9.5 will:

1. Automatically convert all branding JSON (`$CBSHOME\conf\Branding\*.json`).
2. Import the properties into '`$CBSHOME\conf\cbs.db`'.
3. Export remaining assets into '`$CBSHOME\conf\Branding\{ID}`' structure containing branded graphics, XML, and metadata.

The migration is triggered when the branding settings is loaded for the first time (e.g. access sub admin console, build client installer) or by daily Auto Save routine (06:00), whichever occur first, after handling, the JSON will rename to `".json.bak"` to signify it was migrated.

## Newly installed AhsayCBS

From AhsayCBS v9.5 onwards, Branding will store relevant changes into their new locations:

- ▶ `cbs.db` (temp files `cbs.db-wal` and `cbs.db-shm`)
- ▶ `$CBSHOME\conf\Branding\{ID}`

These are needed if troubleshooting is necessary.

## AhsayCBS v9.5 behavior changes within `$CBSHOME\conf\Branding\`:

- ▶ Branding JSON are no longer generated nor existing JSON updated. Any “\*.json.\*” found here (i.e. `ROOT.json`, `ROOT.json.2`) are pre-v9.5, and will remain here until future enhancement to remove them.
- ▶ Branding JSON rollback files (the .1, .2) are no longer generated whenever you save Branding changes from the AhsayCBS UI. There no longer exists automatic creation of previous JSON copy.
- ▶ The Export / Import of branding JSON is still available, however, the exported JSON will omit exporting graphics that are unchanged (i.e. no custom graphic uploaded), thus reducing the JSON export file size. Any JSON exported from AhsayCBS v9.5 is not backwards compatible with earlier AhsayCBS version.
- ▶ Routine AhsayCBS conf backup and Auto Save will still bundle exported branding JSON file(s), along with the `cbs.db`; however the `$CBSHOME\conf\Branding\{ID}` directory is not packaged.

## AhsayCBS v9.5 behavior change affecting Language and GUI Feature of AhsayOBM/AhsayACB:

The current settings for Language and GUI Feature will re-apply during AUA (i.e. version upgrade and hotfix). If there were changes to either of these, clients will receive the latest values applied after AUA.

## Overview (v9.7)

Starting with v9.7 or above, deleting backup sets has become easier. Now a [delete](#) button is available in the backup set list.

AhsayCBS will also start supporting saving backups in [immutable destinations](#). Once a destination is set as immutable, users cannot delete or overwrite data saved in that destination. This is an added protection to prevent accidental erasures of important data. Currently only AhsayCBS and three cloud storage destinations supports this feature.

Another new feature for this release is the [Restore Drill](#). This helps to ensure that backup data is restorable by finding out corrupted data at an early phase.

When viewing reports / logs, users can now interact with the displayed Login Name and Backup Set name as presented in each viewable report / log. These [Clickable Login Name and Backup Set names](#) allow users to seamlessly transition between the report / log information and the settings for the presented Backup User and Backup Sets.

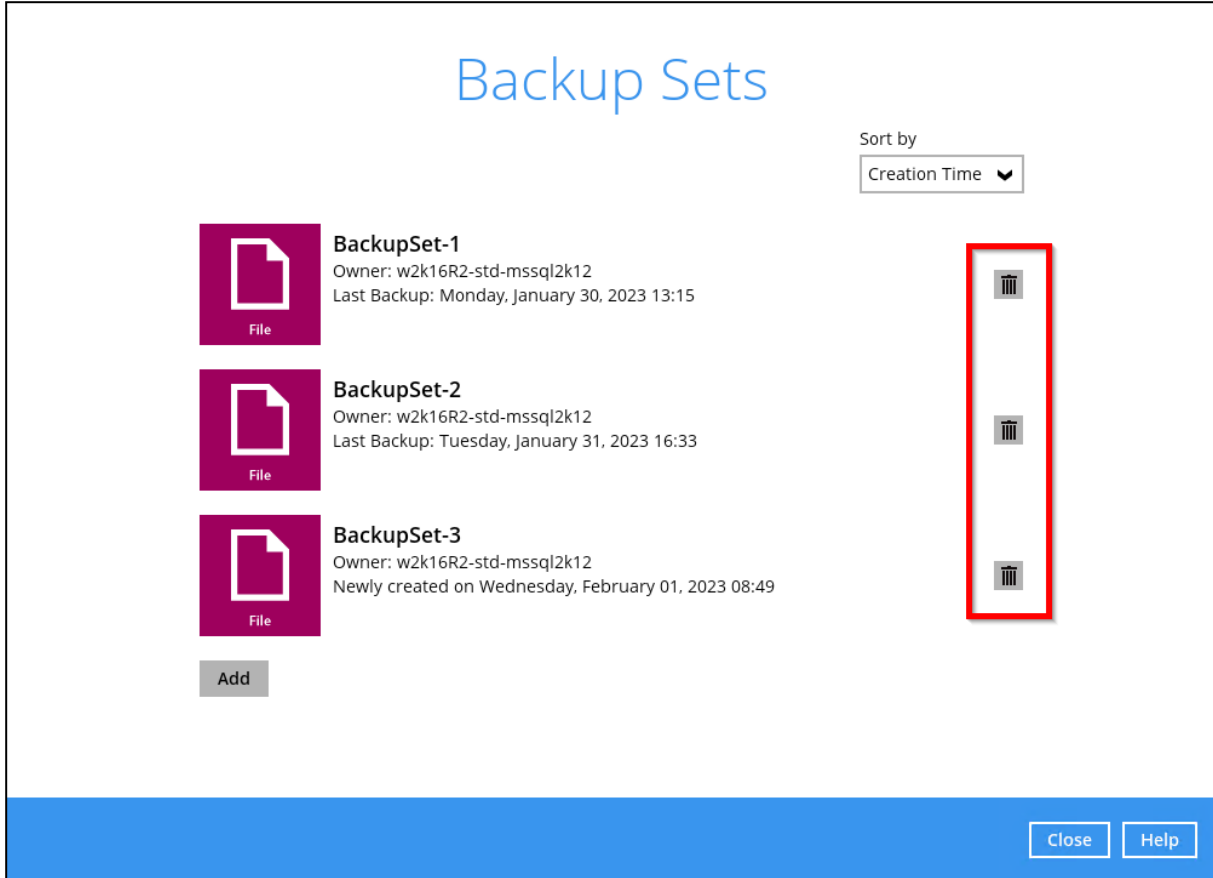
In addition to these added layer of protection, Two-Factor Authentication ([2FA](#)) has been overhauled, now allowing users to choose between allowing logging into the Web Console or making API calls with or without Two-Factor Authentication.

Lastly, an additional feature for Windows machines has been added to Rebranding in the form of [Stealth Installation](#). This feature, when used, allows System Users to build installers that 'hide' AhsayOBM and AhsayACB from easy viewing of users by taking away visible elements of its installation, such as its presence in the System Tray, Start Menu, and Desktop.

## Delete Backup Set

Deleting a backup set is now easier, there is one less step to do it.

Just click the  button and click Yes in the confirmation message and the backup set will be deleted.



## Immutable Destination

To provide added security to backup data, version 9.7 supports select backup destination which is set as immutable backup destination.

When a storage destination is set as immutable, data stored in that destination are protected from being deleted and overwritten. This is to prevent accidental or intentional deletion/overwriting of the stored data. You cannot change this setting once it is set as immutable. However, another checkbox is provided to temporarily allow the data to be deleted or overwritten within the specified date.

The following destinations supports immutable storage destination:

- ▶ AhsayCBS
- ▶ Amazon S3
- ▶ AWS S3 Compatible Cloud Storage
- ▶ Wasabi
- ▶ Backblaze
- ▶ Google Cloud Storage
- ▶ Microsoft Azure

This can be set in System Settings > Basic > Predefined Destination, or through [Preempted Values](#). When setting up Immutable Predefined Destinations, 2FA needs to have been activated for additional security.

### Add New Predefined Destination

Name

AhsayCBS

Type

☒ Single storage destination  
☐ Destination pool

Destination Storage

AhsayCBS

☒ Immutable

☐ Enable deletion temporarily until

2023-04-06

00

:

00

(yyyy-MM-dd hh:mm)



## Datasheet

Here are the expected behaviors of AhsayCBS and Cloud destinations with different settings in Predefined Destination and Preempted Values:

Destination	Predefined Destination	Preempted Value	Behavior
AhsayCBS	<input checked="" type="checkbox"/> Immutable	<input type="checkbox"/> Immutable	AhsayCBS will work as immutable.
	<input checked="" type="checkbox"/> Immutable	<input checked="" type="checkbox"/> Immutable	AhsayCBS will work as immutable.
	<input type="checkbox"/> Immutable	<input type="checkbox"/> Immutable	AhsayCBS will not work as immutable.
	<input checked="" type="checkbox"/> Enable deletion	<input type="checkbox"/> Enable deletion	Deletion will be allowed, as long as the date in Predefined is not expired.
	<input checked="" type="checkbox"/> Enable deletion	<input checked="" type="checkbox"/> Enable deletion	Deletion will be allowed as long as the date is not expired. If set dates are different for Predefined and Preempted, the date in Preempted will be followed.
	<input type="checkbox"/> Enable deletion	<input checked="" type="checkbox"/> Enable deletion	Deletion will be allowed, as long as the date in Preempted is not expired.
	<input type="checkbox"/> Enable deletion	<input type="checkbox"/> Enable deletion	Deletion will not be allowed.
Cloud Destination	<input checked="" type="checkbox"/> Immutable	N/A	Predefined cloud destination will work as immutable.
	<input type="checkbox"/> Immutable	N/A	Predefined cloud destination will not work as immutable.
	N/A	<input checked="" type="checkbox"/> Enable deletion	Deletion will be allowed as long as the date is not expired.
	N/A	<input type="checkbox"/> Enable deletion	Deletion will not be allowed.

## Datasheet

If there is a Backup set created before v9.7, the message “(Supported on or after client version v9.7)” will appear.

### Add New Predefined Destination

Name

AhsayCBS-1

Type

☒ Single storage destination

☐ Destination pool

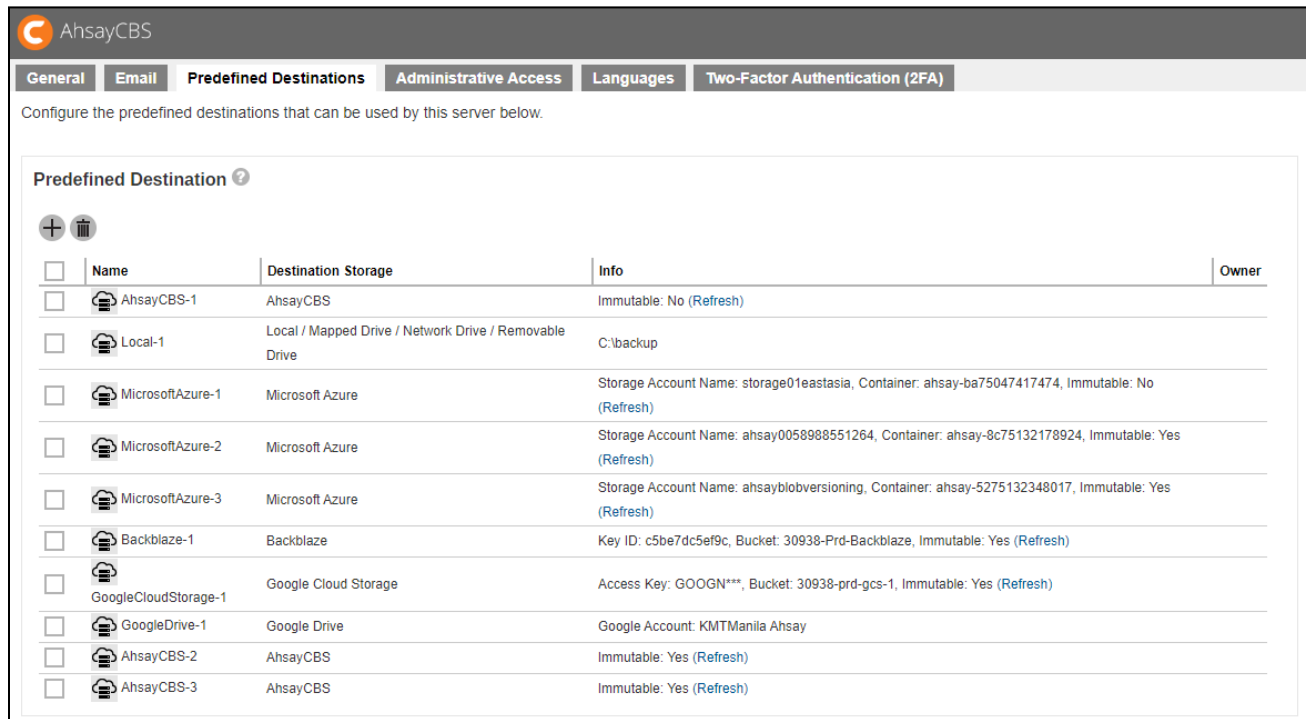
Destination Storage

AhsayCBS

☐ Immutable (Supported on or after client version v9.7)

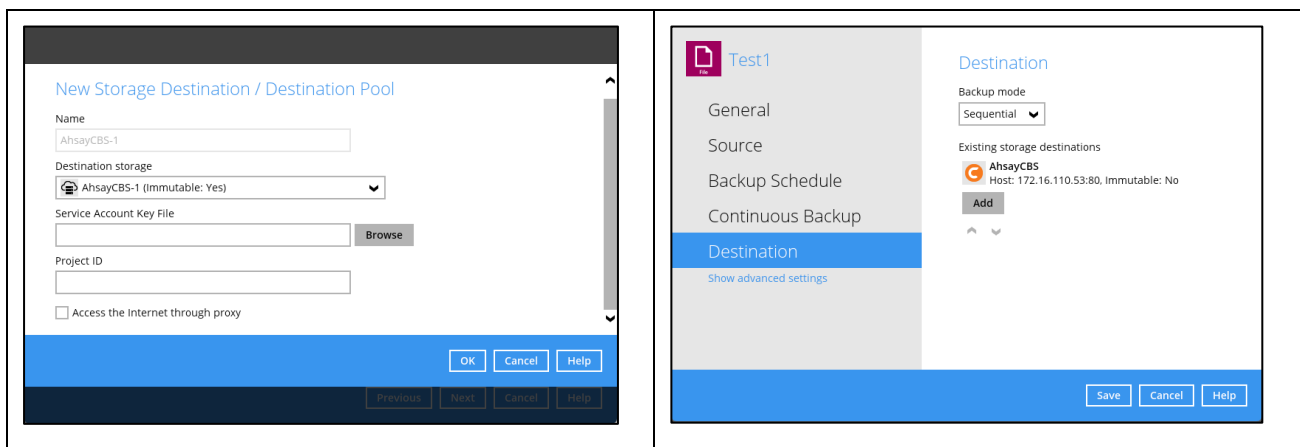
## Storage Destination Immutable Status

On the Predefined Destinations page (**System Settings > Basic > Predefined Destinations**), you will be able to see which of the added Predefined Destinations are Immutable by a text marker under the Info tab that reads “Immutable: Yes” or “Immutable: No”.



Name	Destination Storage	Info	Owner
AhsayCBS-1	AhsayCBS	Immutable: No ( <a href="#">Refresh</a> )	
Local-1	Local / Mapped Drive / Network Drive / Removable Drive	C:\backup	
MicrosoftAzure-1	Microsoft Azure	Storage Account Name: storage01eastasia, Container: ahsay-ba75047417474, Immutable: No ( <a href="#">Refresh</a> )	
MicrosoftAzure-2	Microsoft Azure	Storage Account Name: ahsay0058988551264, Container: ahsay-8c75132178924, Immutable: Yes ( <a href="#">Refresh</a> )	
MicrosoftAzure-3	Microsoft Azure	Storage Account Name: ahsayblobversioning, Container: ahsay-5275132348017, Immutable: Yes ( <a href="#">Refresh</a> )	
Backblaze-1	Backblaze	Key ID: c5be7dc5ef9c, Bucket: 30938-Prd-Backblaze, Immutable: Yes ( <a href="#">Refresh</a> )	
GoogleCloudStorage-1	Google Cloud Storage	Access Key: GOOGN***, Bucket: 30938-prd-gcs-1, Immutable: Yes ( <a href="#">Refresh</a> )	
GoogleDrive-1	Google Drive	Google Account: KMTManila Ahsay	
AhsayCBS-2	AhsayCBS	Immutable: Yes ( <a href="#">Refresh</a> )	
AhsayCBS-3	AhsayCBS	Immutable: Yes ( <a href="#">Refresh</a> )	

This information can also be viewed in the clients for AhsayOBM or AhsayACB when selecting a Destination during the Backup Set creation process, or when viewing the Destination screen in the Account settings.



### New Storage Destination / Destination Pool

Name:

Destination storage:

Service Account Key File:  [Browse](#)

Project ID:

☐ Access the Internet through proxy

[OK](#) [Cancel](#) [Help](#)

### Destination

Backup mode:

Existing storage destinations:

- AhsayCBS Host: 172.16.110.53:80, Immutable: No

[Add](#)

[Show advanced settings](#)

[Save](#) [Cancel](#) [Help](#)

## Policy Group for Non-Immutable Destination

Non-Immutable Destination Settings is a Policy Group that manages pre-v9.7 created Backup Sets. In the event that a Predefined Destination in use by a pre-v9.7 Backup Set is converted by an Admin into an Immutable destination, Non-Immutable Destination acts as a means to prevent any errors from arising during a Backup Job.

This Policy Group, however, is not automatically applied to Backup Users; Administrators will instead have to manually add the “Non-Immutable Destination Group” or create a new User Group with “Non-Immutable Destination Settings” as a Policy to a Backup User.

AhsayCBS

Backup User

User Group

Policy Group

Group Policy 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.

Manage Policy Group ?


<input type="checkbox"/>	Name	Owner
<input type="checkbox"/>	Default settings	--
<input type="checkbox"/>	Non-Immutable Destination Settings	--

## User Group for Non-Immutable Destination

With the addition of “Non-Immutable Destination Settings” under Policy Groups, “Non-Immutable Destination Group” has been added to User Groups, which makes use of “Non-Immutable Destination Settings” as its default Assigned Policy.

Functionally, the “Non-Immutable Destination Group” behaves in a similar manner as other User Groups. However, this User Group in particular is dedicated to the facilitation of Users and their relationship with Predefined Destinations. Users assigned to this User Group have their Predefined destinations and their own relative statuses as Immutable Destinations managed by the User Group.



As an example, if Users have “AhsayCBS” as one of their pre-defined destinations, its status as an Immutable destination will be affected by whichever setting is chosen in the “Non-Immutable Destination Settings” Policy Group, regardless if the Immutable function has been activated during the addition of pre-defined destinations. By making use of this new User Group, this would make it easier for Admins to handle multiple Users and their relationship with Immutable destinations easier due to not having to modify destination settings for each User individually.






 AhsayCBS

**Backup User** **User Group** **Policy Group**

User Groups are used in conjunction with Group Policies for governing the behaviour of client backup applications. Manage your user groups in this section.

**Manage User Group ?**

<input type="checkbox"/>	Name	Owner	No. of users	Destination	Used / Quota (%)
				 AhsayCBS	0 / Unlimited
				 AhsayCBS-1	0 / Unlimited
<input type="checkbox"/>	All Users	--	2	 Dropbox-1	0 / Unlimited
				 GoogleDrive-1	0 / Unlimited
				 Local-1	0 / Unlimited
<input type="checkbox"/>	Non-Immutable Destination Group	--	0	--	--

## Preempted Values

Preempted Values is another way of setting up Immutable destinations. This allows the overriding of any Immutable settings applied to an added Predefined Destination by way of a Policy Group.

In the example below, a Predefined Destination called “AhsayCBS Non Immutable” has been added by the System User. Under the Preempted Values setting of a Policy Group, we have overridden the destination’s Non-Immutable nature and made it into an Immutable Destination.

### Immutable

Name

Applied Modules  
All Modules

Mode  
☐ Prepend  
☐ Append  
☒ Override

Override immutable value of Predefined Destination or Standard CBS:

☒ Immutable  
☐ Enable deletion temporarily until   :  (yyyy-MM-dd hh:mm)



Only users assigned a User Group containing the specific Policy Group that has the necessary Immutable settings in its Preempted Values can benefit from this feature.

If the Predefined Destination and Policy Group’s Immutable settings are contradicting i.e. Immutable is inactive in Predefined Destination settings page and active in Preempted Values, the setting applied to the Policy Group’s Preempted Values will apply.

## Restore Drill


The Restore Drill feature is used to check for corrupted files in the backup data. Once corrupted files are detected, a report will be generated listing the details of the corruption. Depending on whether Backup User has set up their contact details or the Admin has allowed Restore Drill Reports to be emailed to the Backup User in the Policy Group that governs them, the report will be subsequently emailed to the Backup User.

This Report, emailed or not, serves as a reminder to the Backup User to run the Backup Set again in order to correct the encountered issues uncovered during the Restore Drill.

To activate the function, navigate to:

- ▶ AhsayCBS Web Console
  - Users, Groups & Policies > Backup User > %Backup User Name% > Backup Set > %Backup Set Name% > Others > Restore Drill**
- ▶ AhsayOBM / AhsayACB Client
  - Backup Sets > %Backup Set Name% > Others > Restore Drill**

<div> <div> <div>Restore Drill</div> <div>           Run trial restore to ensure data healthiness and update corrupted files.           <div> <div>Run restore drill every</div> <div>6 Months</div> </div> </div> </div> </div>	<div> <div> <div>Restore Drill</div> <div>           Run trial restore to ensure data healthiness and update corrupted files.           <div> <div>On</div> <div></div> </div> </div> <div>           Run restore drill every           <div> <div>6 Months</div> </div> </div> </div> </div>
AhsayCBS Web Console	AhsayOBM / AhsayACB Client



Although Restore Drill settings can also be customized in the Preempted Values section of a Policy Group, these settings will not be able to override the activation of the function as it is set through the AhsayCBS Web Console or AhsayOBM / AhsayACB Client.

Only the schedule for Restore Drill jobs (i.e. the “Run restore drill every” setting) can be overridden by way of Preempted Values.

## Manual and Scheduled Restore Drill Jobs

There are two ways in which to run a Restore Drill job:

### ► Scheduled

This way of running a Restore Drill job is predicated on the “Run restore drill every” setting, which can be customized once you have activated Restore Drill for a Backup Set or in Preempted Values. The frequency of every Restore Drill job run is measured in Months in increments of 6.


### Restore Drill

Run trial restore to ensure data healthiness and update corrupted files.

Run restore drill every

Months






































### ► Manual

Alternatively, Restore Drills can also be done through the AhsayCBS Web Console. Navigate to **Users, Groups & Policies**, then mark the tick-box next to the Backup User/s you wish to run a Restore Drill job on. From there, click on the  icon, and choose from the Backup Sets in the following screen to run a Restore Drill.

Backup User | User Group | Policy Group

Manage your backup users in this section.

#### Manage Backup User ?





You may also view any running Restore Drill jobs on this page, and stop them if needed.


Run Restore Drill						
<input type="checkbox"/>	Login Name (Alias)	Owner	Backup Set	Destination	Last Job	Job Status
<input checked="" type="checkbox"/>	OBM (OBM)	--	 default-backup-set-name-1 (1692077090111)	 AhsayCBS	--	--



To be able to run a Restore Drill, you must have first run a Backup Job using the Backup Set you wish to perform a Restore Drill on.

Additionally, you may only be able to manually start a Restore Drill job for AhsayCBS destinations. Scheduled Restore Drill jobs will perform normally, regardless of the Backup Set's chosen destinations.

The status of a running Restore Drill job can be viewed in **Monitoring > Live Activities > Restore Drill**.




 AhsayCBS

Backup Status
Restore Status
Restore Drill
Replication
Receiver
Redirection

List of all restore drill jobs pending or running on this server.

### Restore Drill Status

Filter

Login Name (Alias)	Owner	Backup Set	Destination	Mode	Status	Current File	Start Time	Action
 OBM (OBM)	--	 default-backup-set-name-1	 AhsayCBS	Running	<div> <div></div> 100% </div>		14:04:45	<div>Pause</div> <div>Stop</div>

## Email Notification

If any file is corrupted, and is detected by the Restore Drill, an e-mail reminding a Backup User to run a Backup Job again due to these corruptions will be generated and sent to the Backup User's listed e-mail address as described in the **Contact** settings of their User Profile.

If the Backup User has not setup an e-mail as their contact, or if Email Reports are turned off in the User Settings of the Policy Group they are assigned to, a report will nonetheless be generated but be left unsent to the backup User.

### Email Reports

☒ Backup Report
 

☒ All reports
 ☐ Specific report(s):

☒ Restore Report

☐ Restore Drill Report

The Reports for these Restore Drill jobs can be downloaded from either **Backup / Restore > Restore Drill Jobs** or from the **Report** section of the Backup User's setting page on the AhsayCBS Web Console. These reports come in PDF format, and details the Corrupted, Verified, and To be Verified Backup Files and Chunks of the Backup Job.

User Profile

Backup Set

Settings

Report

Statistics

Effective Policy

Backup

Restore

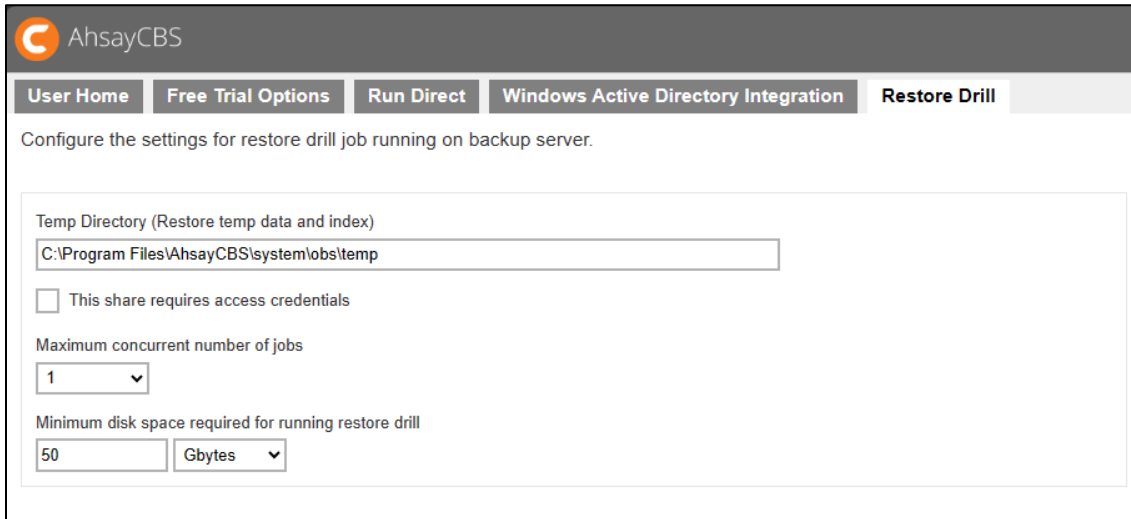
Restore Drill

Restore Drill Jobs for This User

Backup Set	Destination	Duration	Job Verified Till	Size	Status
default-backup-set-name-1	AhsayCBS	08/15/2023 14:06:12 SGT - 08/15/2023 14:06:19 SGT	2023-08-15-14-04-21	0(0)	<a href="#">OK</a>
default-backup-set-name-1	AhsayCBS	08/15/2023 14:04:45 SGT - 08/15/2023 14:04:53 SGT	2023-08-15-14-04-21	0(0)	<a href="#">OK</a>

## Restore Drill Tab

In addition to the aforementioned features for Restore Drill, a new tab that allows Admins to ‘tweak’ specific settings for Restore Drill jobs such as Temp Directory, concurrent jobs allowed, and minimum disk space required for Restore Drill jobs has been added to AhsayCBS. This tab can be accessed through **Backup / Restore > Basic > Restore Drill**.



The screenshot shows the AhsayCBS web interface with the 'Restore Drill' tab selected. The interface includes a navigation bar with links: 'User Home', 'Free Trial Options', 'Run Direct', 'Windows Active Directory Integration', and 'Restore Drill'. Below the navigation bar, a message states: 'Configure the settings for restore drill job running on backup server.' The configuration area contains three sections: 1. 'Temp Directory (Restore temp data and index)' with a text input field containing 'C:\Program Files\AhsayCBS\system\obs\temp'. 2. A checkbox labeled 'This share requires access credentials' which is currently unchecked. 3. 'Maximum concurrent number of jobs' with a dropdown menu set to '1'. 4. 'Minimum disk space required for running restore drill' with a text input field set to '50' and a unit dropdown menu set to 'Gbytes'.

AhsayCBS

User Home Free Trial Options Run Direct Windows Active Directory Integration **Restore Drill**

Configure the settings for restore drill job running on backup server.

Temp Directory (Restore temp data and index)

C:\Program Files\AhsayCBS\system\obs\temp

☐ This share requires access credentials

Maximum concurrent number of jobs


1

Minimum disk space required for running restore drill

50 Gbytes

## Clickable Login Name and Backup Set name

When viewing Logs as listed in **Monitoring > Backup / Restore Logs**, the listed Login Name and Backup Set of each Log are now clickable menu items that users can use to view the settings for the Backup User and Backup Set respectively.

 AhsayCBS

Backup Jobs

Restored Jobs

Restore Drill Jobs

Backup Errors

Backup Set Log

Activities Log

View all the backup jobs by all backup users below.

List of Backup Jobs

Filter

Backup Job

Job Status

Run on

User Group

View

Today

Login Name	Owner	Backup Set	Destination	Start Time	End Time	Version	Upload Size	Dedupe Saving	Job Status	Report
<a href="#">OBM</a>		<a href="#">default-backup-set-name-1</a>	AhsayCBS	08/15/2023 14:04	08/15/2023 14:04	OBM 9.6.7.0	0	0	Error	<a href="#">Download</a>

## Customizable 2FA Protection

Two-Factor Authentication (2FA) now has several features that make it more customizable for System Users that enhance 2FA's protection. The first two of these options, presented as markable tick-boxes, are:

- ▶ [Web Console](#)
- ▶ [API](#)

Profile

Authentication

Password

Password

ggeRi1mrAu37jPPCb6q6sRyBRtzVxUgHbso6jqZu0l=

Reset Password

Two-Factor Authentication

Apply 2FA when authenticate: ☐ Web Console ☒ API

☐ Enable User Device Impersonation for below registered device(s)

Registered Mobile Device(s)

+

🗑

<input type="checkbox"/>	Device Name	Verified	Last Verified Time
--------------------------	-------------	----------	--------------------

Last Successful Login

Time: 08/16/2023 09:59:19 CST

IP address: 127.0.0.1

Browser / App: Windows / Chrome

Mobile Device: --

### Web Console

The Web Console setting, if turned on, will require the user logging into the system that has this feature enabled to submit the Authentication Code as presented in their paired Ahsay Mobile app or Third-Party Authenticator app.

When turned off, this setting simply removes the 2FA page when logging in, giving users immediate access to the Web Console.

## Two-Factor Authentication

Enter one-time passcode generated from authenticator app

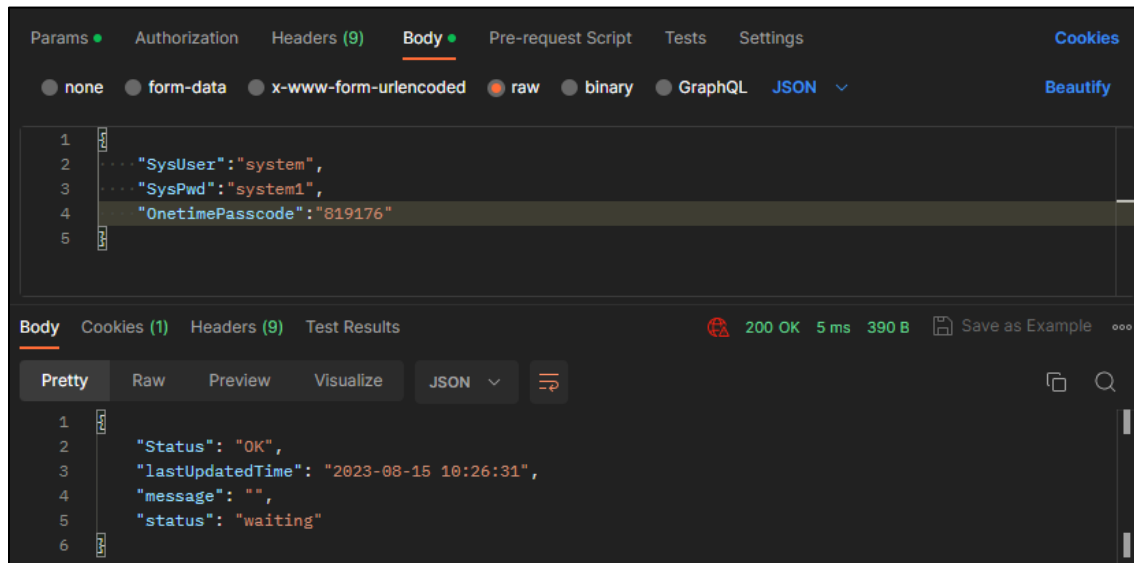
(00:00:03)

[Unable to login](#)

# Datasheet

## API

The API setting, if turned on, requires the user to input the Authentication Code as presented on their Authenticator Application to authenticate any API calls done. Without the code, all API calls will be returned with Parameter errors due to the missing code – this will prevent any changes done through API from taking effect, and even prevent basic API functions such as getting status reports regarding CBS functions.



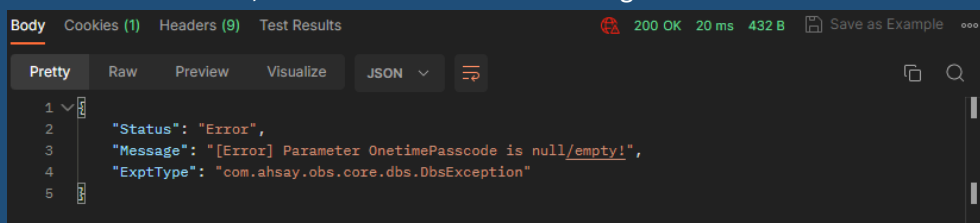
The screenshot shows a REST client interface with the 'Body' tab selected. The request body is a JSON object with the following fields: 'SysUser' (system), 'SysPwd' (system1), and 'OnetimePasscode' (819176). The response is a 200 OK status with a 5 ms response time and 390 B of data. The response body is a JSON object with the following fields: 'Status' (OK), 'lastUpdatedTime' (2023-08-15 10:26:31), 'message' ( ), and 'status' (waiting).

```
1 {
2   "SysUser": "system",
3   "SysPwd": "system1",
4   "OnetimePasscode": "819176"
5 }
```

```
1 {
2   "Status": "OK",
3   "lastUpdatedTime": "2023-08-15 10:26:31",
4   "message": "",
5   "status": "waiting"
6 }
```



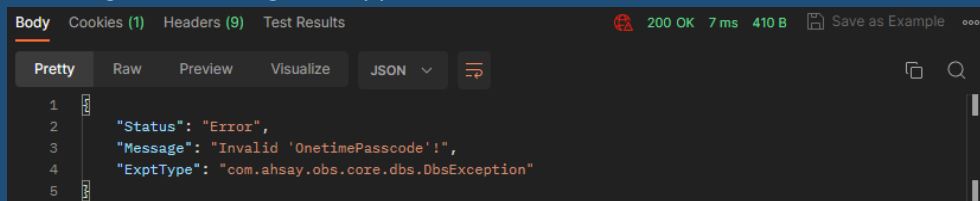
If the “OnetimePasscode” parameter is missing from the API call, along with the correct Authentication Code, users will receive the following return:



The screenshot shows a REST client interface with the 'Body' tab selected. The response is a 200 OK status with a 20 ms response time and 432 B of data. The response body is a JSON object with the following fields: 'Status' (Error), 'Message' ([Error] Parameter OnetimePasscode is null/empty!), and 'ExptType' (com.ahsay.obs.core.dbs.DbsException).

```
1 {
2   "Status": "Error",
3   "Message": "[Error] Parameter OnetimePasscode is null/empty!",
4   "ExptType": "com.ahsay.obs.core.dbs.DbsException"
5 }
```

If the Authentication Code entered into the “OnetimePasscode” parameter is incorrect, the following error message will appear instead:



The screenshot shows a REST client interface with the 'Body' tab selected. The response is a 200 OK status with a 7 ms response time and 410 B of data. The response body is a JSON object with the following fields: 'Status' (Error), 'Message' (Invalid 'OnetimePasscode'!), and 'ExptType' (com.ahsay.obs.core.dbs.DbsException).

```
1 {
2   "Status": "Error",
3   "Message": "Invalid 'OnetimePasscode'!",
4   "ExptType": "com.ahsay.obs.core.dbs.DbsException"
5 }
```

## Stealth Installation (Windows Only)

A new feature for Branding / Rebranding, Stealth Installation is a “GUI Feature” that now allows for installers to be built that specifically targets the visibility of AhsayOBM and AhsayACB on a user’s local machine.

The Stealth Installation setting presents itself as a checkbox that administrators can tick or untick when building installers. This option is found in:

**System Settings > Basic > Administrative Access > [Select System User] > Rebrand Clients > Application Settings – AhsayOBM or AhsayACB > GUI Feature.**



When the checkbox is ticked and either AhsayOBM or AhsayACB are installed or re-installed if there was a prior installation, the icons for either program that can usually be found in the **System Tray**, **Desktop**, or the **Start Menu** will be hidden from view.

To remove Stealth Installation’s effects, AhsayOBM or AhsayACB will have to be uninstalled from the user’s machine. Following this, the Stealth Installation’s tick-box needs to be unmarked, where afterwards either AhsayOBM or AhsayACB can be re-installed by redownloading their installers and running their executables.