# Ahsay Cloud Backup Suite Software v8 Upgrade Guide

Ahsay Systems Corporation Limited

**11 October 2021**

# Copyright Notice

# Trademarks

# Disclaimer

# Revision History

| Date | Descriptions | Type of modification |
| --- | --- | --- |
| 31 March 2021 | Removed instructions for upgrading to v6 to v7 in Ch. 3; Added link to API Guide in Ch. 4.2.2; Added backup set index conversion and periodic data integrity check in Ch. 5.3; Added periodic data integrity check in Ch. 8.1.2; Added Ahsay Mobile Branding in Ch. 8.5.1; Added description and screenshot of Ahsay Partners in Ch. 8.5.2 | Modification |
| 7 April 2021 | Added limitations on Oracle and MS Exchange 2013 mail level backup sets in Ch. 3.2 | New |
| 25 May 2021 | Added Ch. 8.2.3; Updated Ch. 8.2.1 | New / Modifications |
| 18 June 2021 | Updated typo in Ch. 4.1; Added handling of backup and restore reports in Ch. 8.1.7; Added new features that can be customized in Ch. 8.4.1; Added hiding VM Run Direct tile in Ch. 8.4.2 | New / Modification |
| 11 October 2021 | Added re-authorize of Dropbox in Ch. 8.4 | New |

# Table of Contents

# 1 System Requirements

Before you install the AhsayCBS v8, please pay attention to the following system requirements and make sure that the requirements are met before getting started.

- The AhsayCBS should be deployed on a machine supporting 64-bit multiple CPU and multiple cores environment.

- A 64-bit operating system will allow AhsayCBS to run on a 64-bit Java OpenJDK 1.8 platform, as 64-bit Java is capable of supporting sufficient capacity for future business expansion, to meet the need of existing customers and to support new AhsayCBS server features.

- For AhsayCBS running on Linux / FreeBSD, the GLIBC or GNU C Library version 2.14 or higher must be installed to support OpenJDK 1.8.

- The firewall must be configured to allow outbound connections to pns.ahsay.com via port 80 and 443 to be able to use push notifications which is a new feature introduced in AhsayCBS v8.5.0.0 or above.

Please refer to the following articles for the system requirements of AhsayCBS.

FAQ: Ahsay Software Compatibility List (SCL) for version 7.3 or above (5001)

FAQ: Ahsay Hardware Requirement List (HRL) for version 7.3 or above (5000)

FAQ: Ahsay Software Compatibility List (SCL) for version 8.1 or above

FAQ: Ahsay Hardware Requirement List (HRL) for version 8.1 or above

**It's recommended to install AhsayCBS on server grade O/S and hardware platform.**

**For evaluation purposes, the installation on Windows 7 or Windows 8 platforms are permitted for non-production use.**

# 2 License

Please check on the following outlines before you upgrade your Ahsay products **especially if you are upgrading from AhsayOBS v6**.

- It is recommended to check on each AhsayCBS server, your license key support and expiry date to make sure it has not expired before performing the upgrade so that the license key is eligible to run on the latest version.

    - You can login to your AhsayCBS, then click on License, then scroll down to verify your Expiry date is not yet passed.

    - If it has passed, you should avoid upgrading, as doing so will cause your server to Stop, due to expired maintenance license. Without valid maintenance, your server should remain as-is on the day maintenance lapsed.

    - If upgrading AhsayCBS on Windows platform using the cbs-win.exe installer, if the license key does not have valid maintenance, the process will fail. You will receive the following message if you have an expired maintenance license.
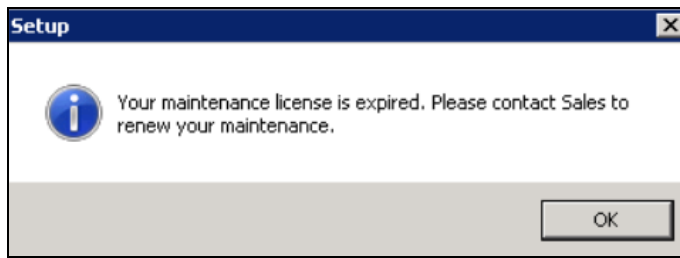


- Here is a summary of the license CAL required for the AhsayCBS:

    - AhsayOBM (Per device to back up)

    - AhsayACB (Per device to back up)

    - AhsayCBS (Per running instance)

    - Replication Module (Per device to replicate) for AhsayOBM/AhsayACB devices

        o Module applied to Backup Server's AhsayCBS license key

    - Redirection Module (Per device to redirect)

        o Module applied to separate Redirector license key

    - Separate modules for Office 365, VMware, Hyper-V, MS Exchange Mail Level, OpenDirect/Granular Restore, Mobile etc.

- Before upgrading AhsayCBS Redirector, please ensure that you have

    i. A valid Redirector license key with Redirector CAL assigned.

    ii. A separate AhsayCBS Backup Server License with an **AhsayCBS module enabled**. With a standalone AhsayRDR setup, you will not need any Client CAL under AhsayCBS Server License. Only the AhsayCBS module is required.

- Upgrade of Replication Receiver system will require an AhsayCBS Server License with AhsayCBS module enabled. No Client CAL necessary if this server is providing receiver services.

- Upon upgrade, a "12 hours grace period" will be provided to manage deficient quota usage, after which Server Stopped if license not amended.

- Trial users do not count towards CAL quotas. However, once they become Paid users, their usage will be deducted from the license quota.

If you need to purchase extra modules/license CALs and or CBS modules you can purchase it at the Ahsay Shopping Centre, or you may contact our Sales Team for more information.

# 3   Limitations and Factors to consider on Upgrading AhsayOBM / AhsayACB

In this chapter, we will discuss the limitations on upgrading AhsayOBM / AhsayACB from an older to latest version:

- v6 to v8.5.0.0 or above

- v7 / pre-v8.5.0.0 to v8.5.0.0 or above

## 3.1   v6 to v8.5.0.0 or above

- Auto Update may not be supported on some older versions of the following operating systems:

  - FreeBSD
  - Linux

Since v8 or above runs on Open JDK 8, Linux / FreeBSD machines must support and have GBLIC 2.14 or later already installed. The AUA will not deploy installation or upgrade of GBLIC during the auto update. Please update them manually on the above platforms.

For reference on the respective platforms, please check the AhsayOBM Quick Start Guide for further details.

The following packages must be present on the Linux / FreeBSD machines for AhsayOBM v8 to be installed.

| Package | Linux | FreeBSD |
|---|---|---|
| **curl**  https://curl.haxx.se<br>The 'curl' command is used by both the AhsayOBM sh script and rpm installer to download components from AhsayCBS server during the installation process. | ✔ | ✔ |
| **tar** https://www.gnu.org/software/tar<br>The 'tar' command is used by both the AhsayOBM sh script, gz, and rpm installer to uncompress and extract installation files or components downloaded from the AhsayCBS backup server onto the Linux machine. | ✔ | ✔ |
| **psmisc** http://psmisc.sourceforge.net/<br>The 'psmisc' package which contains the 'fuser' components must be installed for AhsayOBM, for the auto update agent (AUA) process to work properly. | ✔ | ✔ |
| **OpenJDK Version 1.8** https://www.freebsd.org/java/<br>and the installed Java Development Kit version must be 8. | ✘ | ✔ |
| **GNU LIBC 2.14** https://www.gnu.org/software/libc/<br>The installed 'GNU LIBC' version must at least be 2.14. | ✔ | ✔ |

- AhsayOBM v8 uses OpenJDK 1.8.0_181. For Linux/FreeBSD platforms to support OpenJDK 1.8, GNU C Library (GLIBC 2.14 or above) is required to be installed. This means that older Linux/FreeBSD versions may note support the upgrade to v8 as they do not support GBLIC 2.14 or above. For example: Redhat 4, 5, or 6, CentOS 4, 5, or 6. Therefore, clients running older Linux Operating System will have to remain on AhsayOBM v6.29 until the Linux OS is upgraded.

- For macOS platform, only version 10.7.3 or above will support AhsayOBM / AhsayACB v8. Therefore, AhsayOBM / AhsayACB v6 running on an older version of macOS will have to remain on v6.29 until macOS is upgraded.

- Periodic Backup Schedule Conversion

    - For all Operating System platforms such as, Windows, FreeBSD, Linux, macOS, after upgrading AhsayOBM v6 to v8.5.0.0 or above, all backup sets containing periodic backup schedules will be seamlessly migrated to periodic backup schedules in v8.5.0.0 or above. The backup interval will be same as the periodic backup schedule in v6.

- AhsayACB v8 is only supported on Windows desktop platforms, for example: Windows XP/ Vista / 7/ 8 /8.1/10. Therefore, if your clients installed AhsayACB v6 on Windows Server Operating System (OS), for example: Windows Server 2003/ 2008/ 2012, they cannot be upgraded to v8 and will have to remain on AhsayACB v6.29, unless your clients migrates to an AhsayOBM account.

- As MS Exchange 2003 is no longer supported, AhsayOBM v6 on this machine cannot be upgraded to AhsayOBM v8. Therefore, clients will have to remain on AhsayOBM v6.29.

- As AhsayOBM v7 is required to be installed directly on the MS SQL server for backups. AhsayOBM v6 backup set for MS SQL server databases running on a remote machine cannot be upgraded to v7, therefore clients will have to remain on AhsayOBM v6.29.

- The Off-Line Backup Reminder setting is removed in v8. Instead it is replaced by System Logout Backup Reminder which you can configure from the client UI at Backup Sets > select the backup set > Reminder.

- The Continuous Backup feature replaces the Continuous Data Protection (CDP) setting in v6. The v6 CDP settings will be migrated to Continuous Backup schedule after upgrade to v8. The Continuous Backup feature is only supported on Windows platforms on both v8.

| v8 | Continuous Backup feature only supports File backup set. For non-File backup set, it is recommended to use periodic backup schedules. |
|---|---|

The following options are removed in Continuous Backup:

- Time Mark Interval

- Minimum Update Interval

- Backup Source – Backup all files

- Backup Source – Custom (if "Backup Source – Custom" was configured for the v6 backup set, it will be automatically migrated to use the backup set's Backup Source)

- Advanced CDP setting (e.g. Backup Control on CPU usage, network traffic, no input time)

While the following options are new in Continuous Backup:

- ⊙ Define how often backup run

- ⊙ Only apply to files smaller than

- ⊙ Windows 10 may experience difficulties with Auto Update, if Digital Signature is not enabled when building branded client installers. You may elect to manually upgrade client.

## 3.2 v7 / pre-v8.5.0.0 to v8.5.0.0 or above

- ◗ Auto Update may not be supported on some older versions of the following operating systems:

  - ⊙ FreeBSD
  - ⊙ Linux

  Since AhsayOBM v8 or above runs on Open JDK 8, Linux / FreeBSD machines must support and have GBLIC 2.14 or later already installed. The AUA will not deploy installation or upgrade of GBLIC during the auto update. Please update them manually on the above platforms.

  For reference on the respective platforms, please check the [AhsayOBM Quick Start Guide](#) for further details.

  The following packages must be present on the Linux / FreeBSD machines for AhsayOBM v8 or above to be installed.

| Package | Linux | FreeBSD |
|---|---|---|
| **curl**  https://curl.haxx.se<br>The 'curl' command is used by both the AhsayOBM sh script and rpm installer to download components from AhsayCBS server during the installation process. | ✔ | ✔ |
| **tar** https://www.gnu.org/software/tar<br>The 'tar' command is used by both the AhsayOBM sh script, gz, and rpm installer to uncompress and extract installation files or components downloaded from the AhsayCBS backup server onto the Linux machine. | ✔ | ✔ |
| **psmisc** http://psmisc.sourceforge.net/<br>The 'psmisc' package which contains the 'fuser' components must be installed for AhsayOBM, for the auto update agent (AUA) process to work properly. | ✔ | ✔ |
| **OpenJDK Version 1.8** https://www.freebsd.org/java/ and the installed Java Development Kit version must be 8. | ✘ | ✔ |
| **GNU LIBC 2.14** https://www.gnu.org/software/libc/<br>The installed 'GNU LIBC' version must at least be 2.14. | ✔ | ✔ |

- ◗ Periodic Backup Schedule Conversion

  - ⊙ All AhsayOBM v7 / pre-v8.5.0.0 Windows non-file backup sets with Continuous Backup schedules will be migrated to periodic schedules.

  - ⊙ All AhsayOBM v7 / pre-v8.5.0.0 Windows file backup set with Continuous Backup schedules will not be migrated to periodic schedules.

- Windows 10, Windows 2016, and Windows 2019, may experience difficulties with Auto Update, if Digital Signature is not enabled when building branded client installers. You may elect to manually upgrade client.

- VMware ESXi/vCenter v6, v6.5, v6.7 and v7 backup sets running in VDDK mode may encounter issues during backup and restore due to the latest VMware VDDK 7 API implemented in AhsayOBM v8.3.4.0 to v8.3.6.125.  For more details please refer to this link.

   - Affected existing AhsayOBM version with VDDK 7  API:  AhsayOBM v8.3.4.0 to 8.3.6.125

   - Affected VMware versions:  VMware ESXi/vCenter v6, v6.5, v6.7 and v7 backup sets running in VDDK backup mode

   It is highly recommended to immediately upgrade to AhsayOBM 8.5.0.0 or above to fix this issue.  Once AhsayOBM is upgraded to v8.5.0.0 or above, the existing VMware ESXi/vCenter v6, v6.5, v6.7 and v7 backup jobs will resume running without any further configuration or intervention needed.

   Starting from AhsayOBM v8.5.0.0, Ahsay has decided to temporarily revert to using VDDK 6 API until the VDDK 7 API bug is addressed by VMware.

   Until further notice, VDDK 6 API will be used in:

   - All new installations of AhsayOBM v8.5.0.0 or above

   - AhsayOBM upgrades from v6, v7, or pre-v8.5.0.0 to 8.5.0.0 or above

- The method used for obtaining a consistent snapshot for Oracle backup sets on Windows has changed, starting from AhsayOBM v8.5.0.0.

   Instead of using Microsoft VSS, the database files will be spooled to the temporary folder (AhsayOBM makes a copy of the entire database and/or archive log files and saves them in the temporary directory) in order to achieve a consistent snapshot for backups.

   As a result, the free disk space on the temporary folder should be at least 150% of the total database size to accommodate the database files and any incremental/differential delta files generated.

- MS Exchange 2013 mail level backup sets using MAPI backup mode may stop working, starting from Microsoft Exchange 2013 Cumulative Update 23 or above.  This is due to limitations and functional issues with MAPI (Message Application Programming Interface) backup mode which is a Microsoft technology used by Ahsay to enable MS Exchange Server 2013 mail level backup and restore.  It is strongly recommended to transition to EWS protocol.

   For details please refer to the following article Termination of Support for mail level backups using MAPI Protocol on MS Exchange 2013 Cumulative Update 23 or above.

- AhsayOBM on Synology and QNAP does not support Auto Update, they must be manually updated.

# 4 Pre-Upgrade

## 4.1 Pre-Upgrade Notes

This upgrade guide is for AhsayCBS Administrator or Service Providers familiar with AhsayCBS and who will perform an in-place upgrade from either AhsayOBS v6.29 or AhsayCBS v7.17.2.2 to the latest version of AhsayCBS v8. Even if you had prior upgrade experience with our product, you should thoroughly read through this revised document for any new information or procedures, before attempting the upgrade.

| | |
|---|---|
| ✔ | If you are new to the product line, refresh your knowledge about the installation from the AhsayCBS Quick Start Guide. |
| ✔ | You should review the following to ensure compatibility with your environment:<br>⊙ Release Notes<br>⊙ AhsayCBS Hardware Compatibility List (HRL), FAQ: Ahsay Hardware Requirement List (HRL) for version 8.1 or above<br>⊙ AhsayCBS Software Compatibility List (SCL), FAQ: Ahsay Software Compatibility List (SCL) for version 8.1 or above |
| ✔ | You should also review this guide for v6.29 upgrade, Best Practice for Upgrade from AhsayOBS to AhsayCBS and Data Migration Conversion |
| ✔ | You server should be in good health. If you are experiencing issues and have not yet consulted with Ahsay Technical Support, it would be advisable to have your issue resolved prior to upgrade. In the event that your issue has been fixed in a newer release, our Support Team will recommend for you to continue with the upgrade. |
| ✔ | Subscribe to our Ahsay Professional Services to enjoy a smooth and effortless upgrade experience. Visit the Ahsay Services page to learn more about our offered services. |
| ✔ | Prior to upgrading, we recommend to temporarily disable any Antivirus, scanning checks, or system updates. This will ensure no conflicts that could cause the upgrade to fail. |
| ✔ | If your AhsayCBS server version is not v7.17.2.2 or above, and your users are running pre-v7.17.2.2 client version; we highly recommend you first upgrade your environment (and users) to the latest release of AhsayCBS v7 before upgrading to the latest version of AhsayCBS v8. |

---

**Admin of AhsayUBS?**

**For AhsayUBS environment, you will find your upgrade procedure in the AhsayUBS Administrator's Guide.**

The upgrade of AhsayCBS on AhsayUBS is to be performed as a pair, upgraded by upgrading the AhsayUBS firmware. You should not attempt to upgrade AhsayCBS separately.

---

**Admin of Legacy AhsayCBS Azure Appliance?**
**For customers running legacy Appliance, please consult with Ahsay Technical Support for further information.**

The Azure AhsayCBS Appliance is an appliance package based on FreeBSD, originally published in 2016, and sunset mid-2018 for new installations.

Note: Not to be confused with AhsayCBS installed on an Operating System hosted on Azure virtual machine, which is still supported.

## 4.2   Pre-Upgrade Tasks

Before you start the upgrade of your current AhsayCBS v7.17.2.x server for the latest AhsayCBS release version, please make sure you have the following four (4) items prepared:

1.  A set of the latest configuration backed up

    -   In v7.17.2.x, you can back up the configuration from,
        **[System Settings]** -> **[Advanced]** -> **[Auto Save]**.

        -   The **[Auto Save]** feature allows you to store your CBS server's configuration with Ahsay Cloud. In the event of a disaster of your CBS server, you can reinstall CBS and then download your configuration.

        -   Feature should be enabled at least one day prior to upgrade. As **[Auto Save]** is a daily routine, this to ensure function completes.

        -   Verify the date of last upload shown on **[Auto Save]** page.

        -   There is a 50MB limit, any configuration package greater than 50MB will not be uploaded. You might exceed 50MB if you have more than one branding JSON for any Admin or Sub-Admin. If so, you should manually backup your configuration settings.

    -   If you prefer to manually backup your configuration, you may zip the **%AhsayCBS_HOME%/conf** folder, and the **%AhsayCBS_HOME%/system/obs/policies** folder; keep your copy in separate destination.

2.  If you operate a branded AhsayCBS, export each of your production Branding JSON.

3.  A copy of your existing v7 (space permitting):

    -   AhsayCBS installer binary matching your existing version.

    -   AhsayCBS configuration and branding information found in the %AhsayCBS_HOME %/conf folder

    -   System home %AhsayCBS_HOME%/system folder.

    -   AhsayOBM/AhsayACB Offline Client installers, download via CBS Web Console.

    -   If you have modified your cbs.css, retain a copy from %AhsayCBS_HOME%/webapps/cbs/include/cbs.css

    -   If you have modified any Report templates, retain a copy from %AhsayCBS_HOME%/webapps/obs/jsp/report/*.*

4.  Disable the AhsayOBM/AhsayACB client auto update (AUA).

    We recommend you use the CBS Web Management Console to Disable/Enable AUA settings per user. Alternatively, to globally disable the client auto update, rename the **"index.xml"** file in **%AhsayCBS_HOME%/download/liveUpdat**e to **"index.xml.disable".**

### 4.2.1 Pre-Requisites

For AhsayCBS v8

1. OpenJDK 8 for Windows, Linux, FreeBSD

   - OpenJDK is bundled with installation of AhsayCBS for Windows and Linux.

   - For upgrade or installation on FreeBSD, your system administrator must manually install OpenJDK 8 (reference: https://www.freebsd.org/java/ )

     Note: AhsayCBS 8 only supports OpenJDK 8.

2. GNU C Library (GLIBC) requirement for Linux and FreeBSD

   - For upgrade or installation, your system administrator must verify system runs GLIBC 2.14 or greater. Otherwise, manually install GLIBC 2.14 or greater.

### 4.2.2 API Tests

As new APIs (JSON format) can be introduced in new releases of AhsayCBS, we recommend you review Release Notes and the API guide for any changes. We recommend that after upgrading, you test your application to ensure compatibility.

Please download the AhsayCBS API Guide from our website for reference. You can download it from here.

Please note that some API may have a "version 1" and a "version 2" type.

# 5 Upgrade Sequence

Before upgrading your Backup Server, Replication Server, and Redirector Server; please consider the upgrade sequence to avoid possible issues. The following details provide the recommended sequences for AhsayCBS upgrade.

We also recommend you have enabled AutoSave feature for each AhsayCBS server, and allow it to run at least one day in advance of your upgrade.

## 5.1 Ahsay Redirector (if applicable)

Upgrade of Redirector Host has a higher precedence than the Backup Server or Replication Receiver. We recommend this server be upgraded first, before proceeding with the AhsayCBS Backup Server upgrade.

---

**WARNING**

Do not update any settings in "Hosting a Redirector" after Ahsay Redirector v6 is upgraded to AhsayCBS v8, if any AhsayOBM/AhsayACB v6 clients are using the Local Copy feature on any of the AhsayOBS v6 server(s). Otherwise, all the AhsayOBM/AhsayACB v6 backups with Local Copy enabled will fail to work and the problem cannot be fixed afterwards.

You may only change the settings after:

- ◉ AhsayOBS v6 is upgraded to AhsayCBS v8.

- ◉ All AhsayOBM/AhsayACB v6 clients with Backup Set Local Copy feature enabled hosted on the AhsayCBS v8 are also upgraded to AhsayOBM/AhsayACB v8.

---

## 5.2 AhsayCBS (Backup Server)

**The Backup Server must be upgraded to AhsayCBS before your clients are upgraded**. As AhsayCBS (Backup Server) is backward compatible with v6.29 and will be able to process both backup clients from v6.29, v7, and v8.

Please disable any replication (if enabled) before upgrading your AhsayCBS server.

If you are branded, you should disable AUA for all users prior to upgrade. This will allow you to verify branding properties after AhsayCBS upgrade, and avoid unintentional branding errors pushed to client devices.

## 5.3 AhsayOBM / AhsayACB

Before enabling the auto update or manual update for your users:

- It is strongly recommended to allow your AhsayCBS system to run for a day or two, in order to resolve any outstanding issues, first before planning to upgrade the AhsayOBM/AhsayACB of clients to the latest version.

- When enabling Auto Update, it is recommended to perform the upgrade of the clients in small batches e.g. 5-10 users, to avoid network congestion and potentially overloading the AhsayCBS server.

- Backup Set Index Conversion

  Backup set index conversion will take place for all v6, v7 and pre-v8.3 AhsayOBM/AhsayACB backup sets after upgrading to v8.5.0.0 or above. The index conversion process will be performed on the backup set on the first backup job immediately after the upgrade.

  The backup set index conversion cannot be disabled.

- Periodic Data Integrity Check

  After AhsayOBM/AhsayACB is upgraded to v8.5.0.0 or above from v6, v7, or pre-8.3.4.x version; on the first backup job after upgrade, a mandatory PDIC job will be triggered to verify the integrity of the data and index. Depending on the number of files and jobs in the backup set, this process could take some time to complete.

  If there are a large number of AhsayOBM/AhsayACB clients upgrading within a short period of time, the resulting large concentration of mandatory PDIC jobs could negatively affect the performance and stability of the AhsayCBS server.

**Supported Clients running on Linux and FreeBSD must have installed GLIBC v2.14 or later.**

As some of the platforms have been de-supported, before you enable the auto upgrade or manual upgrade, please refer to the links found under System Requirements section.

## 5.4 Ahsay Replication Receiver (if applicable)

It is recommended that Ahsay Replication Receiver is upgraded last to provide a backup of your AhsayCBS Backup Server's system's configuration and data. The Replication Receiver(s) should be disabled before AhsayCBS upgrade is carried out.

Please consider only upgrading your Replication system after AhsayCBS Backup Server has been running stable for at least a period of time.

| Warning |
| --- |
| Upgrading out of order can result in failure of the upgrade and may cause service interruption to your customers. |

| Recommendation |
| --- |
| We recommend you maintain identical version and branding, between all your AhsayCBS servers. |

# 6  Upgrade from Previous AhsayCBS Version

## 6.1  Windows

### 6.1.1  Upgrade AhsayCBS by Windows Executable (cbs-win.exe)

The following steps refer to AhsayCBS with Standard installation. Substitute our default path with your installation path.

**If you are using OEM version (branded installation), your Service name and/or path name may be unique.**

**For branded environments, you may use the Ahsay public release download to upgrade your branded AhsayCBS. The *cbs-win.exe* installer will preserve your branding upon upgrade. As a precaution, you should export a copy of each of your Branding JSON for "admin" and any primary "sub-admin" account. After you have upgraded the server, you are required to [Rebuild Client](#) for "admin" and each primary "sub-admin" account, before the new client is available for download or AUA.**

1. Download the AhsayCBS executable (*cbs-win.exe*) from our website.

2. Logon with Windows administrator privileges (i.e. administrator).

3. Stop the AhsayCBS service from the Services management console, this can be reached from [Control Panel] > [Administrative Tools] > [Services] > Ahsay Cloud Backup Suite. Click the **Stop** button on the left as highlighted.
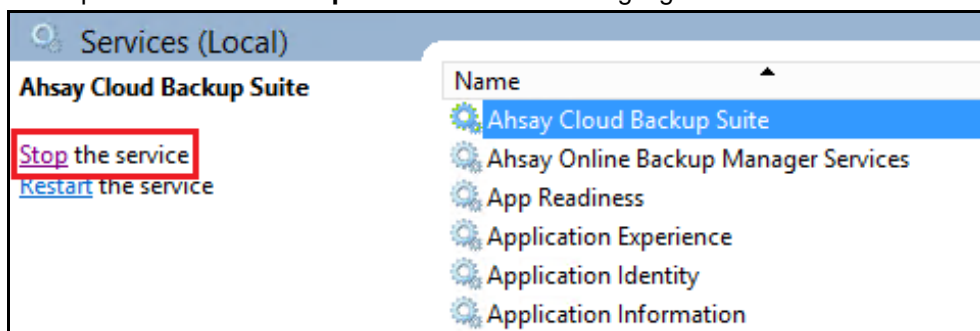


4. Stop the **NFS** Service.

   To do so, go to [Control Panel] > [Administrative Tools] > [Services] > [NFS Service (Ahsay Systems Corporation)], click the **Stop** button on the left as highlighted.

5. Remove the folder *C:\Program Files\AhsayCBS\system\cbs\Installers*

   ⊙  This contains Branded installers, which will be out of date upon AhsayCBS upgrade.

6. Double-click the downloaded *cbs-win.exe* to start the AhsayCBS setup wizard.

7. Select the language to use during the installation from the dropdown box and click on [OK].

8. The installer will detect there is already an AhsayCBS installed, click on **[Yes] to migrate the settings** from your existing installation to the new installation.
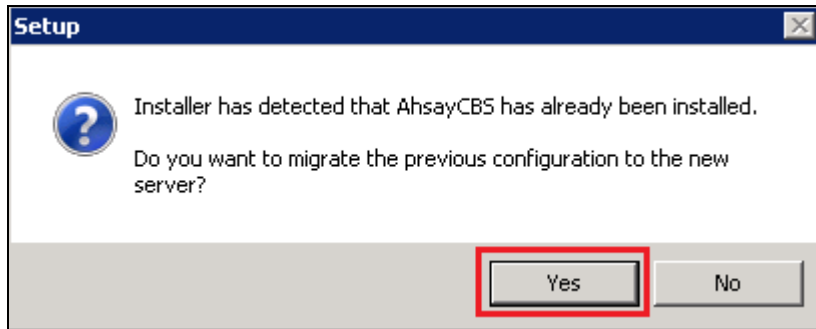


9. A welcome screen will be shown, please click [Next] button to go to the next step.

10. On the next screen, it will prompt the license agreement window. After you have read the terms and conditions, choose [I accept the agreement] and click the [Next] button to proceed.

11. The system will check the validity of your maintenance license before proceeding with the installation.  Click [Next] to continue.

---

**NOTE**

Before upgrading to the latest version of AhsayCBS make sure that your license key has a valid support maintenance otherwise installation will fail.  You will receive the following messages if you have an expired maintenance license.



---
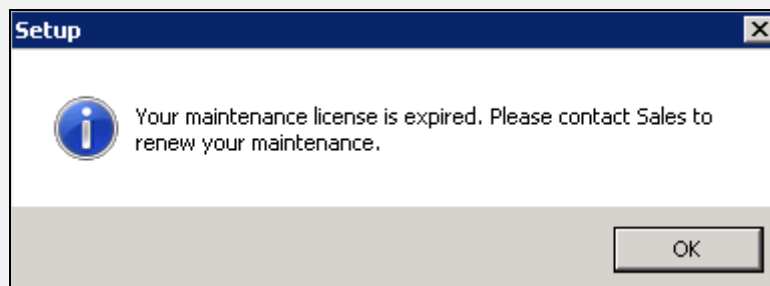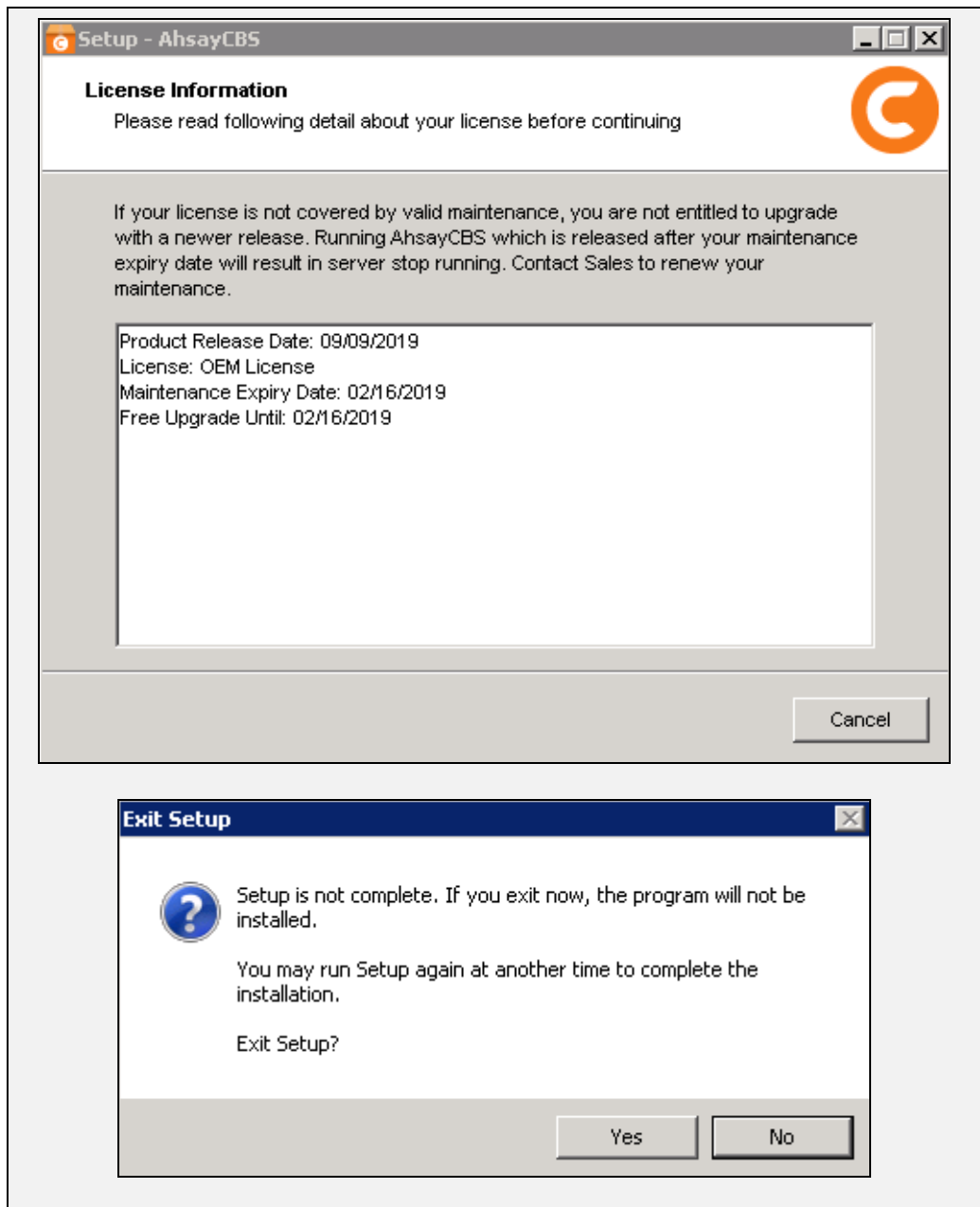
12. Select/deselect the options according to your preferences and click the [Next] button.

> **NOTE**
>
> Please deselect the "Start AhsayCBS Server" option when you do the upgrade.

13. The next screen will provide a summary detail of the options selected. Please verify the installation options. If they are correct, click the [Install] button to begin the installation.

14. Wait until the upgrade process is completed. The installer will expand the installation files to the AhsayCBS installation folder and it should take a few moments. The installation will reuse the same installation folder path.

15. Start up the service from the Services management console, [Control Panel] > [Administrative Tools] > [Services] > [Ahsay Cloud Backup Suite]. Press the [Start] button to start the service.

16. The AhsayCBS service is now starting up. Check that it indeed shows Started.

17. NFS Service is installed upon installation / upgrade of AhsayCBS. Make sure that the service also starts (otherwise manually Start), and following ports are opened:

    - 111 - Port mapper
    - 1058 - Port required for Run Direct
    - 2049 - Port for the NFS service

> **NOTE**
>
> If the upgrade is performed when an AhsayCBS Run Direct restore session is taking place, the Run Direct session will not be interrupted during the upgrade. When the upgrade is completed, backup user can still migrate the VM to the restore destination they have chosen.

18. You can open the following log files to check if there are any errors during the startup located in the **%AhsayCBS_HOME%\logs** folder**:**

    - catalina_yyyy-mm-dd.log
    - console_yyyy-mm-dd.log
    - obs_context_yyyy-mm-dd.log

    **Note:** *yyyy-mm-dd* refers to the upgrade date.

19. Logon to the AhsayCBS web management console to check on your upgrade.

20. Here is a list of suggested items to check after you started up your AhsayCBS.

    - Check "Host Name" valid represents your Fully Qualified Domain Name (FQDN) of your AhsayCBS server for which this installation was installed onto. You may find it in AhsayCBS web console > [System Settings] > [Basic] > [General] > Host
    - Check SMTP settings in AhsayCBS web console > [System Settings] > [Basic] > [Email].
    - Check all users' profile, backup and policy group settings in AhsayCBS web console > [Backup/Restore] > [Users, Groups & Policies].
    - Recommended for branded servers; Check each user's Auto Update setting is disabled. This will allow you time to verify branding and Rebuild Client, as required.
    - Check AhsayCBS License page, there are no negative usages.
    - Check HTTPS connection to the AhsayCBS on different browsers (IE, Firefox and Chrome). Verify webpage loads.

- Check each client Download link is not outdated.  Please refer to this [article](#) on how to resolve this.

- Connect from any AhsayOBM/AhsayACB to AhsayCBS to verify clients can connect.

For OEM (branded) version, please refer to [Branding on AhsayCBS](#) to generate new installers.

When you confirmed the settings are fine, if you had globally disabled AUA (pre-upgrade step-3), you can reenable the client auto update by renaming the "*index.xml.disable*" file in "%CBS_HOME%/download/liveUpdate/" to "*index.xml*"

## 6.1.2   Upgrade AhsayCBS by Zip File (cbs-win.zip)

**If customers still require *cbs-win.zip* file, for example the installation/upgrade of multiple AhsayCBS instances (via AhsayPRD) on a single Windows server, please contact Technical Support to request. You may open a Support Ticket via [Ahsay Partner Portal](#).**

By using this method to perform the upgrade, admins will have full control on the files added to the upgrade software. This method is recommended for users who are using customized version, have multiple instances installed on a single server (via AhsayPRD), or who are advanced admins who have used our past products.

The following steps are the instructions on how to upgrade AhsayCBS with *cbs-win.zip* file on Windows platform.

**Note: If you are using OEM version (branded installation), your Service name and/or path name may be unique.** Substitute our default path with your installation path.

1. Download the AhsayCBS zip file (*cbs-win.zip*) from the link provided by Ahsay Support.

2. Logon with Windows administrator privileges (i.e. administrator).

3. Stop the AhsayCBS service from the Services management console, this can be reached from [Control Panel] > [Administrative Tools] > [Services] > Ahsay Cloud Backup Suite. Click the **Stop** button on the left as highlighted.
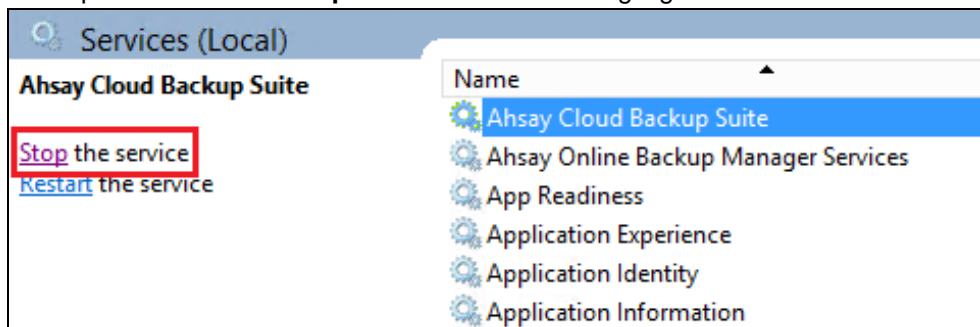


4. Stop the **NFS Service**.

To do so, go to [Control Panel] > [Administrative Tools] > [Services] > [NFS Service (Ahsay Systems Corporation)], click the **Stop** button on the left as highlighted.



5.  Remove the folder *C:\Program Files\AhsayCBS\system\cbs\Installers*

    ◉   This contains Branded installers, which will be out of date upon AhsayCBS upgrade.

6.  Rename the folder *C:\Program File\AhsayCBS* to

    **Example:** *AhsayCBS_717050*
    (rename the folder with its current version number appended) so that you have a rollback copy in case of upgrade issue.

7.  Create a <u>new</u> CBS folder to replace the folder your renamed in previous step. Folder name must match, otherwise existing AhsayCBS Windows Service will fail to start.

    **Example:** *C:\Program File\AhsayCBS*

    •   Substitute our example with your actual installation path.

8.  Expand the zip file to the directory created in previous step.

    **Example:** C:\Program File\AhsayCBS

9.  In this directory, Modify the name of the Java folder in the installation path:

    ◉   for 64-bit machine, change the folder "*java17x64*" to "*java*".

10. Copy the following folders from the old installation folder and replace to the <u>new</u> *C:\Program File\AhsayCBS*

    ◉   C:\Program File\AhsayCBS_717050\conf

    ◉   C:\Program File\AhsayCBS_717050\system

    ◉   C:\Program File\AhsayCBS_717050\logs

    ◉   C:\Program File\AhsayCBS_717050\user

    ◉   C:\Program File\AhsayCBS_717050\**u\*.\***

    You may omit copying the "*user*" folder, if your User Home path is not a folder inside your CBS installation path.

11. Start up the service from the Services management console, [Control Panel] > [Administrative Tools] > [Services] > [Ahsay Cloud Backup Suite].  Press the [Start] button to start the service.

12. The service is now starting up. Check that it indeed shows Started.

13. NFS Service is installed upon installation / upgrade of AhsayCBS.  Make sure that the service also starts (otherwise manually Start), and following ports are opened:

   - 111 - Port mapper
   - 1058 - Port required for Run Direct
   - 2049 - Port for the NFS service

   | NOTE |
   | --- |
   | If the upgrade is performed when an AhsayCBS Run Direct restore session is taking place, the Run Direct session will not be interrupted during the upgrade. When the upgrade is completed, backup user can still migrate the VM to the restore destination they have chosen. |

14. You can open the following log files to check if there are any errors during the startup located in the **%AhsayCBS_HOME%\logs** folder**:**

   - catalina_yyyy-mm-dd.log
   - console_yyyy-mm-dd.log
   - obs_context_yyyy-mm-dd.log

   **Note:** *yyyy-mm-dd* refers to the upgrade date.

15. Logon to the AhsayCBS web management console to check on your upgrade.

16. Here is a list of suggested items to check after you started up your AhsayCBS.

   - Check "Host Name" valid represents your Fully Qualified Domain Name (FQDN) of your AhsayCBS server for which this installation was installed onto. You may find it in AhsayCBS web console > [System Settings] > [Basic] > [General] > Host
   - Check SMTP settings in AhsayCBS web console > [System Settings] > [Basic] > [Email].
   - Check all users' profile, backup and policy group settings in AhsayCBS web console > [Backup/Restore] > [Users, Groups & Policies].
   - Recommended for branded servers; Check each user's Auto Update setting is disabled. This will allow you time to verify branding and Rebuild Client, as required.
   - Check AhsayCBS License page, there are no negative usages.
   - Check HTTPS connection to the AhsayCBS on different browsers (IE, Firefox and Chrome). Verify webpage loads.
   - Check each client Download link is not outdated.  Please refer to this article on how to resolve this.

- Connect from any AhsayOBM/AhsayACB to AhsayCBS to verify clients can connect.

For OEM (branded) version, please refer to the Branding on AhsayCBS section to generate new installers.

When you confirmed the settings are fine, if you had globally disabled AUA (pre-upgrade step-3), you can reenable the client auto update by renaming the "*index.xml.disable*" file in "%AhsayCBS_HOME%/download/liveUpdate/" to "*index.xml*"

## 6.2   Linux (CentOS, Red Hat Enterprise, Ubuntu, Debian)

To operate the below steps, you need to have superuser privilege (i.e. root), experience with unix commands, and you need to have some experience on installing/upgrading our products before.

**Assumption:** You have installed AhsayCBS in the path **/usr/local/cbs**
Substitute our default path with your true installation path.
Alternatively, you may install into any mount if it is not nested in an existing Ahsay installation (It is illegal to currently have CBS installed in */home/cbs*, and you upgrade into */home/cbs/cbs8*).

---

**NEW for v8: OpenJDK and GLIBC Requirement**

AhsayCBS v8 uses OpenJDK 8 which requires GLIBC 2.14 to be installed.

OpenJDK 8 is bundled with installation of AhsayCBS for Linux.

To check your version, run "`ldd --version`" from shell.

If you have questions, contact Ahsay Technical Support., before proceeding with upgrade.

---

1.   Download the AhsayCBS zipped tar file (*cbs-nix.tar.gz*) from our website. Note the path where it was downloaded.

2.   Logon with root privilege on your server.

3.   Stop the AhsayCBS service.

```
# cd /usr/local/cbs/bin

# sh shutdown.sh
```

4.   Remove the folder */usr/local/cbs/system/cbs/Installers* ; to cleanup old branded client binaries

5.   Stop the NFS service.

```
# cd /usr/local/cbs/nfs/bin
```

```
# sh shutdown.sh
```

6. Verify that the service terminated:

```
# ps –ef | grep java
# ps –ef | grep nfs
```

7. Rename the existing installation folder eg: */usr/local/cbs717050* (rename the folder with its current version number appended) so that you have a rollback copy in case of upgrade issue.

```
# mv /usr/local/cbs /usr/local/cbs717050
```

8. Create a <u>new</u> CBS folder to replace the folder your renamed in previous step. Folder name must match, otherwise existing AhsayCBS service script will fail to start.

```
# mkdir /usr/local/cbs
```

9. Copy the installation file, *cbs-nix.tar.gz* to */usr/local/cbs* and untar it.

```
# cp cbs-nix-tar.gz /usr/local/cbs
# cd /usr/local/cbs
# gunzip cbs-nix.tar.gz
# tar –xf cbs-nix.tar
```

10. Space permitting, Copy the **configuration** folder, **system settings** folder, **log** folder and **standard user home** folder <u>from</u> the <u>old</u> CBS folder (eg: cbs717050) <u>to</u> the installation path. (If lack of space, you can *Move* instead of *Copy*)

11. You may omit moving the "*user*" folder, if your User Home path is not a directory inside your CBS installation path.

    **Example:**

```
# cd /usr/local/cbs/
# cp –R /usr/local/cbs717050/conf .
# cp –R /usr/local/cbs717050/system .
# cp –R /usr/local/cbs717050/logs .
# cp –R /usr/local/cbs717050/user .
```

12. Startup the AhsayCBS service by running the following commands:

```
# cd /usr/local/cbs/bin
# sh startup.sh
```

13. NFS Service is installed upon installation / upgrade of AhsayCBS. Make sure that the service also starts (otherwise manually Start under */usr/local/cbs/nfs/bin/startup.sh*), and following ports are opened:

   - **111** - Port mapper

   - **1058** - Port required for Run Direct

   - **2049** - Port for the NFS service

14. You may open the */usr/local/cbs/logs/obs_context_yyyy-mm-dd.log* to check if there are any errors during the startup.

   **Note:** *yyyy-mm-dd* refers to the upgrade date.

15. Logon to the AhsayCBS web management console to check on your upgrade.

16. Here is a list of suggested items to check after you started up your AhsayCBS.

   - Check "Host Name" valid represents your Fully Qualified Domain Name (FQDN) of your AhsayCBS server for which this installation was installed onto. You may find it in AhsayCBS web console > [System Settings] > [Basic] > [General] > Host

   - Check SMTP settings in AhsayCBS web console > [System Settings] > [Basic] > [Email].

   - Check all users' profile, backup and policy group settings in AhsayCBS web console > [Backup/Restore] > [Users, Groups & Policies].

   - Recommended for branded servers; Check each user's Auto Update setting is disabled. This will allow you time to verify branding and Rebuild Client, as required.

   - Check AhsayCBS License page, there are no negative usages.

   - Check HTTPS connection to the AhsayCBS on different browsers (IE, Firefox and Chrome). Verify webpage loads.

   - Check each client Download link is not outdated. Please refer to this article on how to resolve this.

   - Connect from any AhsayOBM/AhsayACB to AhsayCBS to verify clients can connect.

   For OEM (branded) version, please refer to the Branding on AhsayCBS section to generate new installers.

   When you confirmed the settings are fine, if you had globally disabled AUA (pre-upgrade step-3), you can enable the client auto update by rename the "*index.xml.disable*" file in "%CBS_HOME%/download/liveUpdate/" to "*index.xml*"

## 6.3 FreeBSD

To operate the below steps, you need to have superuser privilege (i.e. root), experience with unix commands, and you need to have some experience on installing/upgrading our products before.

**Assumption:** You have installed AhsayCBS in the path **/usr/local/cbs**
Substitute our default path with your true installation path.
Alternatively, you may install into any mount if it is not nested in an existing Ahsay installation (It is illegal to currently have CBS installed in */home/cbs*, and you upgrade into */home/cbs/cbs8*).

---

### NEW for v8: OpenJDK and GLIBC Requirement

AhsayCBS v8 uses OpenJDK 8 and GLIBC 2.14+.

1. For upgrade or installation on FreeBSD, your system administrator must manually install OpenJDK 8. (Reference: https://www.freebsd.org/java/)

2. AhsayCBS v8 uses OpenJDK 8 which requires GLIBC 2.14 to be installed.

3. To install the GLIBC port:

```
# cd /usr/ports/misc/compat9x

# make install distclean
```

If you install the port, the source will be downloaded, patched if necessary, compiled and installed. If the port is dependent upon another port, that port will also be installed. After installing, ports are identical to packages.

If you have questions, contact Ahsay Technical Support., before proceeding with upgrade.

---

1. Download the AhsayCBS zipped tar file (*cbs-nix.tar.gz*) from our website. Note the path where it was downloaded.

2. Logon with root privilege on your server.

3. Stop the AhsayCBS service.

```
# cd /usr/local/cbs/bin

# sh shutdown.sh
```

4. Remove the folder */usr/local/cbs/system/cbs/Installers* ; to cleanup old branded client binaries

5. Stop the NFS service.

```
# cd /usr/local/cbs/nfs/bin
# sh shutdown.sh
```

6. Verify that the service terminated:

```
# ps -ef | grep java
# ps -ef | grep nfs
```

7. Rename the existing installation folder eg: */usr/local/cbs717050* (rename the folder with its current version number appended) so that you have a rollback copy in case of upgrade issue.

```
# mv /usr/local/cbs /usr/local/cbs717050
```

8. Create a <u>new</u> CBS folder to replace the folder your renamed in previous step. Folder name must match, otherwise existing AhsayCBS service script will fail to start.

```
# mkdir /usr/local/cbs
```

9. Copy the installation file, *cbs-nix.tar.gz* to */usr/local/cbs* and untar it.

```
# cp cbs-nix.tar.gz /usr/local/cbs
# cd /usr/local/cbs
# gunzip cbs-nix.tar.gz
# tar -xf cbs-nix.tar
```

10. Space permitting, Copy the **configuration** folder, **system settings** folder, **log** folder and **standard user home** folder <u>from</u> the <u>old</u> AhsayCBS folder (eg: cbs717050) <u>to</u> the installation path. (If lack of space, you can *Move* instead of *Copy*)

   You may omit moving the "*user*" folder, if your User Home path is not a directory inside your AhsayCBS installation path.

   **Example:**

```
# cd /usr/local/cbs
# cp -R /usr/local/cbs717050/conf .
# cp -R /usr/local/cbs717050/system .
# cp -R /usr/local/cbs717050/logs .
# cp -R /usr/local/cbs717050/user .
```

11. **(New for AhsayCBS 8)** Recreate symbolic link to the OpenJDK java home path (example: /usr/local/openjdk8)

```
# rm /usr/local/cbs/java
# ln -s /usr/local/openjdk8 /usr/local/cbs/java
```

12. Startup the AhsayCBS service by running the following commands:

```
# cd /usr/local/cbs/bin
# sh startup.sh
```

13. NFS Service is installed upon installation / upgrade of AhsayCBS. Make sure that the service also starts (otherwise manually Start under */usr/local/cbs/nfs/bin/startup.sh*), and following ports are opened:

   - **111** - Port mapper
   - **1058 -** Port required for Run Direct
   - **2049** - Port for the NFS service

14. You may open the */usr/local/cbs/logs/obs_context_yyyy-mm-dd.log* to check if there are any errors during the startup.

   **Note:** *yyyy-mm-dd* refers to the upgrade date.

15. Logon to the AhsayCBS web management console to check on your upgrade.

16. Here is a list of suggested items to check after you started up your AhsayCBS.

   - Check "Host Name" valid represents your Fully Qualified Domain Name (FQDN) of your AhsayCBS server for which this installation was installed onto. You may find it in AhsayCBS web console > [System Settings] > [Basic] > [General] > Host
   - Check SMTP settings in AhsayCBS web console > [System Settings] > [Basic] > [Email].
   - Check all users' profile, backup and policy group settings in AhsayCBS web console > [Backup/Restore] > [Users, Groups & Policies].
   - Recommended for branded servers; Check each user's Auto Update setting is disabled. This will allow you time to verify branding and Rebuild Client, as required.
   - Check AhsayCBS License page, there are no negative usages.
   - Check HTTPS connection to the AhsayCBS on different browsers (IE, Firefox and Chrome). Verify webpage loads.
   - Check each client Download link is not outdated. Please refer to this article on how to resolve this.
   - Connect from any AhsayOBM/AhsayACB to AhsayCBS to verify clients can connect.

   For OEM (branded) version, please refer to the Branding on AhsayCBS section to generate new installers.

   When you confirmed the settings are fine, if you had globally disabled AUA (pre-upgrade step-3), you can enable the client auto update by rename the "*index.xml.disable*" file in "%CBS_HOME%/download/liveUpdate/" to "*index.xml*"

# 7 Configure Update for AhsayOBM / AhsayACB

## 7.1 Auto Update AhsayOBM / AhsayACB by AUA

**Notes:**

- It is recommended to perform the auto upgrade of the clients in small batches e.g. 5-10 users at a time, to avoid network congestion and potentially overloading the AhsayCBS server.

- If the AUA feature is enabled per individual user prior to upgrade on the previous AhsayCBS version, the feature will continue to be enabled when upgraded to the latest AhsayCBS release.

  For AhsayCBS version 7.15.0.20 or above, AUA supports auto update of AhsayOBM / AhsayACB installation on Windows XP and 2003. However, please note that support for Windows XP and 2003 platforms are on best effort basis. For example, if Windows 2003 is running applications not supported on v7 / v8, for example, MS Exchange 2003. These devices should not be upgraded and remain on v6.

  If you have any mix-compatible devices, you should avoid enabling AUA, as this may cause your user issues.

- For AhsayCBS using Twilio, if Two-Factor Authentication (2FA) is enabled on AhsayCBS v8.3.0.0. or above, the "Allow legacy client to skip SMS authentication" should be checked until all legacy AhsayOBM/AhsayACB clients are upgraded to v8.3.0.0. or above. For more information please refer to the discussion regarding 2FA in Chapter 5.1.6 of the AhsayCBS Administrator's Guide.
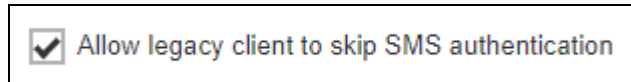


  Legacy clients are AhsayOBM/AhsayACB users who has an old version of AhsayOBM/AhsayACB installed who are connecting to AhsayCBS v8.3.0.0 or above.

  Example of legacy clients are those who still use version 6, 7 or versions earlier than 8.3.0.0. If this setting is not selected all legacy AhsayOBM/AhsayACB clients will not be able to login to AhsayCBS and all scheduled and continuous backup will stop working.

## 7.2 How to Enable AUA

After you upgraded your AhsayCBS and the upgrade is stable on your environment, you can enable the auto update for your clients.

1. Login to your AhsayCBS management console.

2. Enter the [Backup/Restore] > [Users, Groups & Policies]

3. Click on the check box in front of the users that you want their backup client version to be updated.

4. Click on the ⚙ icon.

5. On the next screen, you can mark which user to enable, then press on AutoUpdate button.

   For every 15 minutes or whenever the backup client service restarts, AhsayOBM/AhsayACB will check with your AhsayCBS for any updates. If any auto update instructions were found on the AhsayCBS, the update progress will be started.

## 7.3   Troubleshooting AUA

The Manage Backup User page for Client Version, is not real time. The version is listed after a backup job runs, so there could be delay in version shown between client and AhsayCBS. Furthermore, if a user has more than one device, only the recent job's client version is shown; there is no individual client version list view.

If you need to determine if the process is running or if an update was performed successfully, you may find the AUA logs by reading the applicable section **Auto Update Agent Log (aua.log)**, in the following link:

- [v7] FAQ: Where are the backup client application logs stored at?

- [v8] FAQ: Where are the backup client application logs stored at?

For issues where AUA did not update the client, please note that AUA cannot process in any of the following:

- The AhsayOBM/AhsayACB backup machine is turned off

- The AhsayOBM/AhsayACB backup machine is not connected to the internet

- The AhsayOBM/AhsayACB scheduler services are not running

- The AhsayOBM/AhsayACB user account status is not Enable. (Auto Update will not work if the user account is suspended or locked)

- Client has the AhsayOBM/AhsayACB application window open or minimized (System Tray icon is ok)

- If you recently enabled AUA, the client will poll the server every 15-minutes, then it can take another hour for the upgrade process to complete (time varies depending on bandwidth to download client binaries, and other routines)

- Antivirus or firewall preventing the binaries from completing the download

- Poor network connection between client and AhsayCBS server

- AhsayACB running on Windows Server OS, i.e. Windows 2008, 2008 R2, 2012, and 2012 R2.

- For Linux/FreeBSD machines, the GNU C or GLIBC library is not installed, version must at least be 2.14

- For FreeBSD machines, OpenJDK8 is not installed

- For Linux/FreeBSD machines, the 'psmisc' package which contains the 'fuser' components for Auto Update to work properly is not installed.

- The **home.txt** file is not present on AhsayOBM / AhsayACB client machine or the home.txt file is empty (does not contain the correct path of the **.obm** or **.acb** folder)

- The AhsayOBM **RunConfigurator.sh** script is running on Linux/FreeBSD

## 7.4 Manual Upgrade AhsayOBM / AhsayACB

If you need to manually upgrade your AhsayOBM /AhsayACB, the instruction will be the same as a brand-new installation. Please refer to our AhsayOBM / AhsayACB Quick Start Guide in the User Guide webpage for more information.

# 8   Post Upgrade

## 8.1   Post Upgrade Notes

### 8.1.1   Backup Set Index Conversion

A new index system is introduced in AhsayCBS v8.3.0.0 or above to provide better backup performance and robustness.  The backup set index conversion will take place for all v6, v7 and pre-v8.3 AhsayOBM/AhsayACB backup sets after upgrading to v8.3.0.0 or above.  Index conversion cannot be disabled.  An index conversion process will be performed on the backup set on the first backup job immediately after the upgrade.  The old v6 files: index.bdb and r-index.bdb will be converted to the new index file structure: index.db* and backupInfo.db*.  While the old v7 and pre-v8.3 files: index.b2b*, index.xml* and index-s0* will also be converted to the new index file structure: index.db* and backupInfo.db*.  Temporary space needed for index conversion is 200% of the uncompressed index file.  You will need 100% for the old index file and another 100% for the new index file.  After the index conversion, for large data index the new index will be smaller since duplicated information will be grouped.  But for small data index, the new index might be larger since additional information may be included to the new index.

For v6
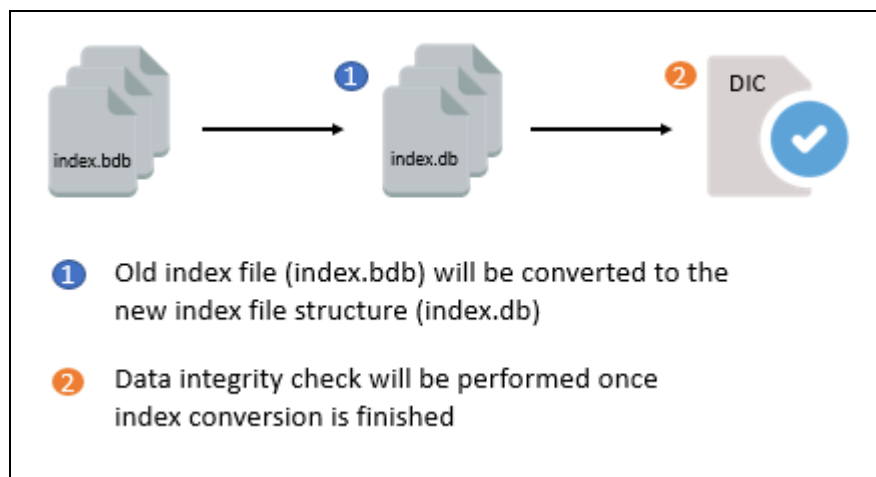


For v7 and pre-v8.3.0.0
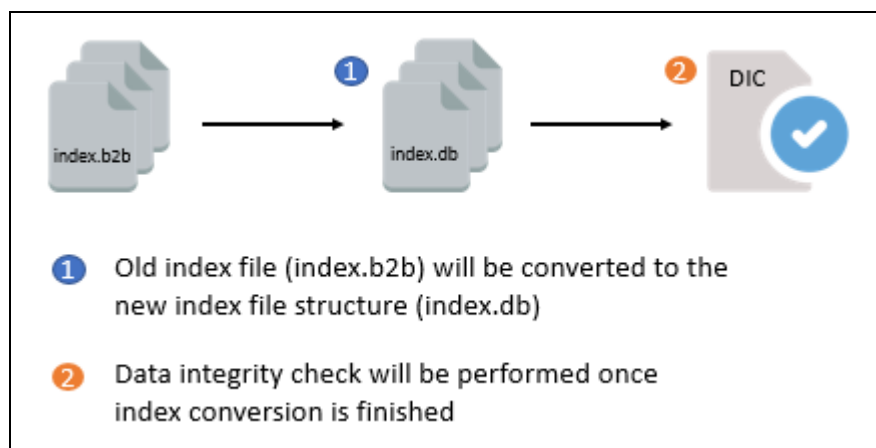
Please note that:
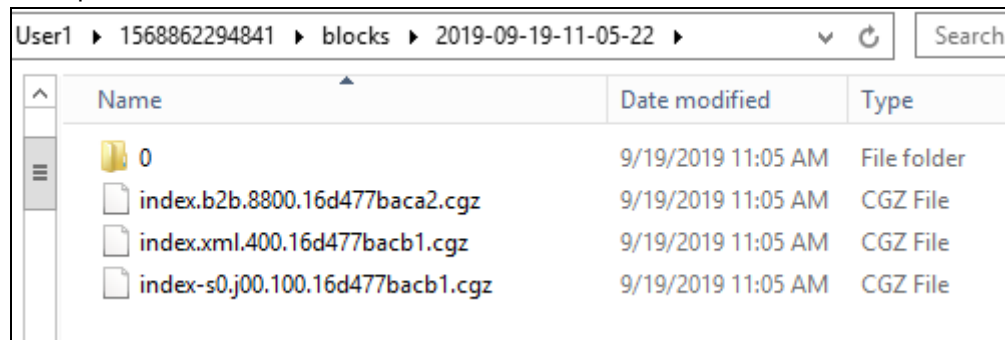
- You cannot disable the index conversion.

- Index conversion process will automatically start during the first backup job after upgrading AhsayOBM/AhsayACB to v8.3.0.0 or above.

- After index conversion the size of the index will be different.  For large data index, the new index will become smaller since duplicate information will be grouped.  While for small data index, the new index may be bigger since additional information may be included in the new index.

**Index Conversion requirement for client versions (AhsayOBM/AhsayACB)**

| Client Version | Index Conversion Needed | Data Migration Needed |
|---|---|---|
| v6 | ✔ | ✔ |
| v7 | ✔ | X |
| Earlier than v8.3.0.0 | ✔ | X |
| v8.3.0.0 or above | X | X |

**Index format comparison**

Example of the old index format:
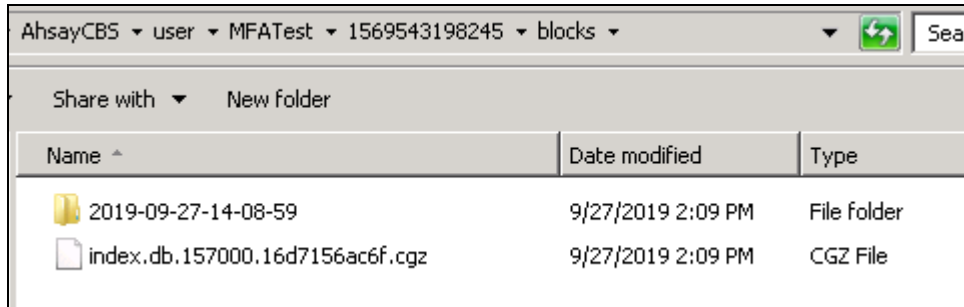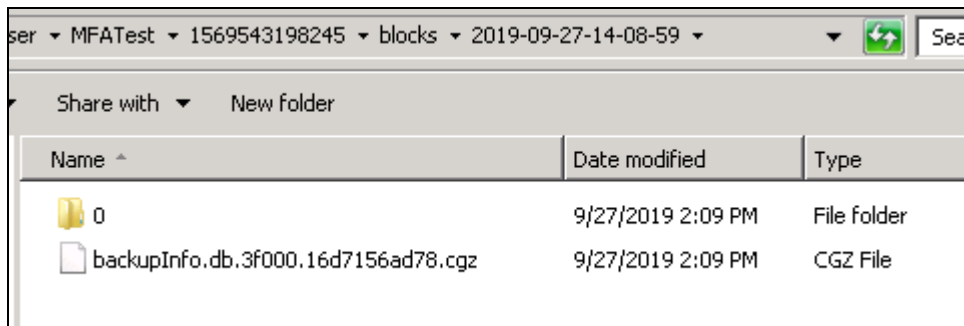


The files can be located in %userhome%/%user%/%backupsetid%/blocks/%timestampfolder%.  It will contain these three (3) files:

- index.b2b.{size}.{timestamp}.cgz

- index.xml.{size}.{timestamp}.cgz

- index-s0.{size}.{timestamp}.cgz

Example of the new v8.3 index format:





The files can be located in %userhome%/%user%/%backupsetid%/blocks

- ⊙ index.db.{size}.{timestamp}.cgz

and %userhome%/%user%/%backupsetid%/blocks/%timestampfolder%

- ⊙ backupInfo.db.{size}.{timestamp}.cgz

The size and timestamp are hashed values.

The v8.3 index conversion process may only take a few minutes for backup sets with a small number of files.  For example: MS SQL Server, MySQL server, MS Exchange database, Oracle database, VMware, Hyper-V, Windows System State, Windows System backup, Lotus Domino etc.

**However, for backup sets which could contain large number of files and folders, the v8.3 index conversion process could take several hours to complete.  For example: File, Cloud File, MS Exchange mail level and Office 365 backup sets.  In some cases, backup sets containing several millions of files/folders could take days to complete the v8.3 index conversion process. Please take this into consideration when planning your AhsayOBM/AhsayACB client upgrade to v8.3.0.0 or above.**

## 8.1.2 Periodic Data Integrity Check (PDIC)

After AhsayOBM/AhsayACB is upgraded to v8.5.0.0 or above from v6, v7, or pre-8.3.4.x version; on the first backup job after upgrade, a mandatory PDIC job will be triggered to verify the integrity of the data and index. Depending on the number of files and jobs in the backup set, this process could take some time to complete.

Here is a diagram of the Periodic Data Integrity Check process.
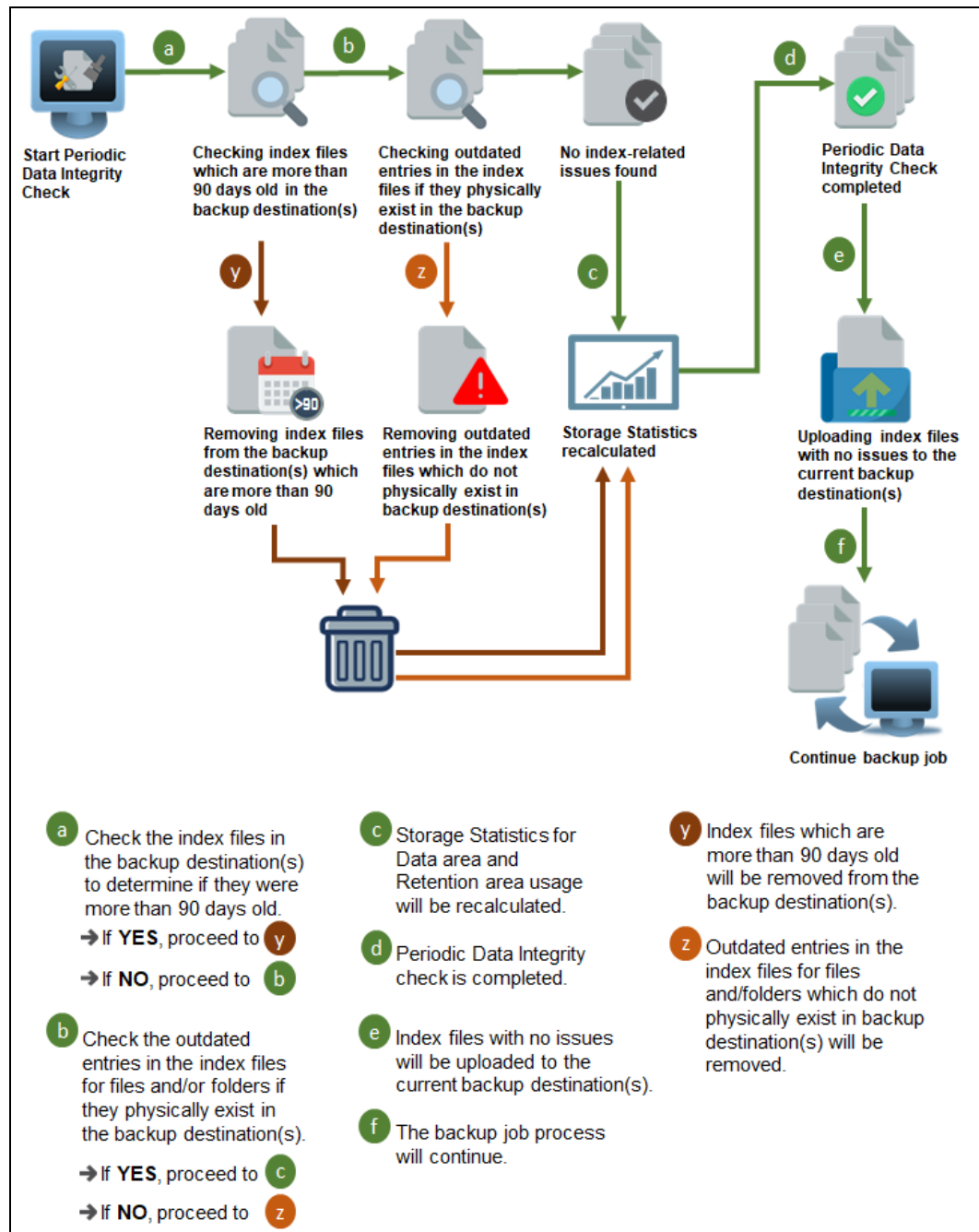
After the mandatory PDIC job, the PDIC will then run on the first backup job that falls on the corresponding day of the week from **Monday to Friday** which is the schedule that will be followed determined automatically by the result of the following formula:

**PDIC schedule = %BackupSetID% modulo 5**

**or**

**%BackupSetID% mod 5**

This schedule was created to minimize the impact of the potential load of large number of PDIC jobs running at the same time on the AhsayCBS server. The calculated result will map to a corresponding day of the week (i.e. from Monday to Friday).

| | |
|---|---|
| 0 | Monday |
| 1 | Tuesday |
| 2 | Wednesday |
| 3 | Thursday |
| 4 | Friday |

**NOTE**

The PDIC schedule cannot be changed.

Example:

Backup Set ID: 1594627447932

Calculation: 1594627447932 mod 5 = 2

| | |
|---|---|
| 2 | Wednesday |

In this example:

⦿ The PDIC will run on the first backup job that falls on a Wednesday; or

⦿ If there is no active backup job(s) running from Monday to Friday, then the PDIC will run on the next available backup job.

**NOTE**

Although the PDIC formula for determining the schedule is %BackupSetID% mod 5, this schedule only applies if the previous PDIC job was actually run more than 7 days prior.

Under certain conditions, the PDIC may not run strictly according to this formula.

For example:

1. If AhsayOBM was upgraded to v8.5 or above from an older version v6, v7, or pre-8.3.6.0 version. In this case, the PDIC job will run on the first backup job after the upgrade.

2. If backup jobs for a backup set are not run on a regular daily backup schedule (for example: on a weekly or monthly schedule), then the PDIC job will run if it detects that the previous PDIC job was run more than 7 days ago.

## 8.1.3  Mapping of the storage class/region for Google Cloud Storage

The following table shows the mapping for the multi-regional location type before and after v8.5.0.0 upgrade.

| v7 / pre- v8.5.0.0 | After Upgrade (AhsayCBS v8.5.0.0 or later) |
|---|---|
| United States (US) | US (multiple regions in United States) |
| European Union (EU) | EU (multiple regions in European Union) |
| Asia | Asia (multiple regions in Asia) |

The following table shows the specific locations for each storage class.

| Storage Class | Specific Location(s) |
|---|---|
| **Multi-Regional** | NAM4 (Iowa and South Carolina) |
| | US (multiple regions in United States) |
| | EU (multiple regions in European Union) |
| | EUR4 (Netherlands and Finland) |
| | Asia (multiple regions in Asia) |
| **Regional** | North America–Northeast1 (Montreal) |
| | South America–East1 (Sao Paulo) |
| | US–Central1 (Iowa) |
| | US–East1 (South Carolina) |
| | US–East4 (Northern Virginia) |
| | US–West1 (Oregon) |
| | US–West2 (Los Angeles) |
| | Europe–North1 (Finland) |
| | Europe-West1 (Belgium) |
| | Europe–West2 (London) |
| | Europe–West3 (Frankfurt) |
| | Europe–West4 (Netherlands) |
| | Europe–West6 (Zurich) |
| | Asia–East1 (Taiwan) |
| | Asia–East2 (Hong Kong) |
| | Asia–Northeast1 (Tokyo) |
| | Asia–Northeast2 (Osaka) |
| | Asia–Northeast3 (Seoul) |
| | Asia–South1 (Mumbai) |
| | Asia–Southeast1 (Singapore) |
| | Australia–Southeast1 (Sydney) |

| | |
|---|---|
| **Nearline** | NAM4 (Iowa and South Carolina) |
| | US (multiple regions in United States) |
| | North America–Northeast1 (Montreal) |
| | South America–East1 (Sao Paulo) |
| | US–Central1 (Iowa) |
| | US–East1 (South Carolina) |
| | US–East4 (Northern Virginia) |
| | US–West1 (Oregon) |
| | US–West2 (Los Angeles) |
| | EU (multiple regions in European Union) |
| | EUR4 (Netherlands and Finland) |
| | Europe–North1 (Finland) |
| | Europe-West1 (Belgium) |
| | Europe–West2 (London) |
| | Europe–West3 (Frankfurt) |
| | Europe–West4 (Netherlands) |
| | Europe–West6 (Zurich) |
| | Asia (multiple regions in Asia) |
| | Asia–East1 (Taiwan) |
| | Asia–East2 (Hong Kong) |
| | Asia–Northeast1 (Tokyo) |
| | Asia–Northeast2 (Osaka) |
| | Asia–Northeast3 (Seoul) |
| | Asia–South1 (Mumbai) |
| | Asia–Southeast1 (Singapore) |
| | Australia–Southeast1 (Sydney) |
| **Coldline** | NAM4 (Iowa and South Carolina) |
| | US (multiple regions in United States) |
| | North America–Northeast1 (Montreal) |
| | South America–East1 (Sao Paulo) |
| | US–Central1 (Iowa) |
| | US–East1 (South Carolina) |
| | US–East4 (Northern Virginia) |
| | US–West1 (Oregon) |
| | US–West2 (Los Angeles) |
| | EU (multiple regions in European Union) |
| | EUR4 (Netherlands and Finland) |
| | Europe–North1 (Finland) |

| | Europe-West1 (Belgium) |
|---|---|
| | Europe–West2 (London) |
| | Europe–West3 (Frankfurt) |
| | Europe–West4 (Netherlands) |
| | Europe–West6 (Zurich) |
| | Asia (multiple regions in Asia) |
| | Asia–East1 (Taiwan) |
| | Asia–East2 (Hong Kong) |
| | Asia–Northeast1 (Tokyo) |
| | Asia–Northeast2 (Osaka) |
| | Asia–Northeast3 (Seoul) |
| | Asia–South1 (Mumbai) |
| | Asia–Southeast1 (Singapore) |
| | Australia–Southeast1 (Sydney) |

## 8.1.4 Two-Factor Authentication for Twilio users in AhsayCBS v8.5.0.0 or above

Since Mobile Authentication is introduced in AhsayCBS v8.5.0.0 or above to provide additional security for user accounts, users who are using Twilio Credentials Verification for two-factor authentication may continue using it. Upon upgrade, the existing Twilio Credentials setup will be automatically migrated.



However, only one type of two-factor authentication may be enabled. You cannot use both at the same time, so you have to choose which type you would use. If you decide to use Mobile Authentication instead, once you enable it, Twilio Credentials Verification will automatically be deleted and it is not possible to re-enable it at a later date.

**To enhance security, the recovery email feature for Twilio users has been removed.**

## 8.1.5  Run on Server (Agentless) Office 365 and Cloud File backup port requirement

When upgrading AhsayCBS v6, v7 and pre-v8.3.4.42, due to enhancement to the AhsayCBS Run on Server backups an additional connector has been added.  The default port 8081 on local IP address 127.0.0.1 is used for Run on Server (Agentless) Office 365 and Cloud File backup.  This is automatically setup upon installation but is not visible from System Settings > Basic > General > Connectors to prevent users from editing or deleting it.  However, it can be checked in the server.xml file which is located in the `$APPLICATION_HOME\conf` folder.

```xml
<?xml version="1.0" encoding="ISO-8859-1"?>
<Server port="60024" shutdown="SHUTDOWN">
  <Listener className="org.apache.catalina.core.AprLifecycleListener" SSLEngine="on" />
  <Listener className="org.apache.catalina.core.JreMemoryLeakPreventionListener" />
  <Listener className="org.apache.catalina.mbeans.GlobalResourcesLifecycleListener" />
  <Listener className="org.apache.catalina.core.ThreadLocalLeakPreventionListener" />
  <Service name="Catalina">
    <Executor minSpareThreads="1" namePrefix="tomcatThreadPool-http-0.0.0.0-80-"
name="tomcatThreadPool-http-0.0.0.0-80" maxThreads="200" />
    <Executor minSpareThreads="1" namePrefix="tomcatThreadPool-https-0.0.0.0-443-"
name="tomcatThreadPool-https-0.0.0.0-443" maxThreads="200" />
    <Executor minSpareThreads="1" namePrefix="runOnServerBackup-http-127.0.0.1-8081-"
name="runOnServerBackup-http-127.0.0.1-8081" maxThreads="200" />
    <Engine name="Catalina" defaultHost="localhost">
```

If the default port is occupied, then AhsayCBS will automatically acquire the next available free port from 8081 to 9080.  If all ports in that range are occupied, then AhsayCBS service is stopped.

## 8.1.6  Mobile Licensing

To support the new Ahsay Mobile app, the Ahsay Mobile licenses will be listed under **Mobile** Add-on Modules which are free of charge and each license key is assigned an unlimited quota.

The **Mobile** Add-on Modules are required by an AhsayOBM/AhsayACB user if they are using the Ahsay Mobile app for Android and iOS backups.  If the Ahsay Mobile app is only used for Two-Factor Authentication (2FA) purposes, then the Mobile license modules are not required.

| Client Add-on Modules | Quota | Used | Available |
|---|---|---|---|
| Microsoft Exchange Mailbox (Per Mailbox) | 5 | 0 | 5 |
| Hyper-V / VMware (Per Guest VM) | 10 | 0 | 10 |
| Hyper-V / VMware (Per Socket) | 10 | 0 | 10 |
| NAS - Synology / NAS - QNAP | 10 | 1 | 9 |
| Mobile | Unlimited | 20 | Unlimited |
| Office 365 | 10 | 0 | 10 |
| OpenDirect / Granular Restore | 5 | 0 | 5 |

Each AhsayOBM/AhsayACB user account is currently limited to 10 Mobile CALs.



| NOTE |
|------|
| The Mobile Add-on Module is only for mobile backup and it does not apply the use of Ahsay Mobile as a Two-Factor Authentication (2FA) tool. |

## 8.1.7   Backup and Restore Reports

The composition of email reports that will be sent has changed starting with AhsayCBS v8.5.2.42 or above.  If the size of the PDF report is less than 10MB, the PDF report will be attached in the email.  However, if the size of the PDF report is greater than 10MB, the PDF report will not be attached in the email.  Instead, a download link will be available for the user to download the PDF report.

This was changed to ensure that emails will be received by the user by making sure that it will not be blocked by SMTP server due to email size is too big.  This will also help in managing the capacity of the clients' mailbox by making sure that the email sent does not take up too much space.

Here is a sample of an email that will be received if the PDF report is less than 10MB.



**AhsayCBS**

Dear user,

Here is the summary of your backup job "2021-06-11-15-07-11". Full backup report is also attached for your reference.

**Backup Job Summary**

| User | user |
| --- | --- |
| Backup Set | BackupSet-1 |
| Destination | Local-1 |
| Data Size | 437K |
| Retention Size | 0 |
| Backup Quota | Unlimited |
| Remaining Quota | Unlimited |
| Backup Job | 2021-06-11-15-07-11 |
| Job Status | OK |
| Backup Time | 06/11/2021 15:07:11 CST - 06/11/2021 15:07:33 CST |
| IP Address | 192.168.12.1 (DESKTOP-I7U6970) |
| New Files | 31(437.9K) |
| New Directories | 5 |
| New Links | 0 |
| Updated Files | 0(0) |
| Attributes Changed Files | 0(0) |
| Deleted Files | 0(0) |
| Deleted Directories | 0 |
| Deleted Links | 0 |
| Moved Files | 0(0) |

Sincerely
Ahsay Support Team

BackupReport2021-06-11-15-07-11+1623395216001.pdf
16 KB

And here is a sample of an email that will be received if the PDF report is greater than 10MB.

**AhsayCBS**

Dear user,

Here is the summary of your backup job "2021-06-14-10-57-36". The full PDF report can be downloaded in the link(s) below:

- Local-1 (Local / Mapped Drive / Removable Drive)

**Backup Job Summary**

| | |
|---|---|
| User | user |
| Backup Set | BackupSet-2 |
| Destination | Local-1 |
| Data Size | 1.52G |
| Retention Size | 0 |
| Backup Quota | Unlimited |
| Remaining Quota | Unlimited |
| Backup Job | 2021-06-14-10-57-36 |
| Job Status | **OK** |
| Backup Time | 06/14/2021 10:57:37 CST - 06/14/2021 11:18:27 CST |
| IP Address | 192.168.12.1 (DESKTOP-I7U6970) |
| New Files | 300000(1.5G) |
| New Directories | 2 |
| New Links | 0 |
| Updated Files | 0(0) |
| Attributes Changed Files | 0(0) |
| Deleted Files | 0(0) |
| Deleted Directories | 0 |
| Deleted Links | 0 |
| Moved Files | 0(0) |

Sincerely
Ahsay Support Team

## 8.2 Post Upgrade Tasks

### 8.2.1 Post AhsayOBM/AhsayACB v6 to v8 or above backup set index conversion and data migration process
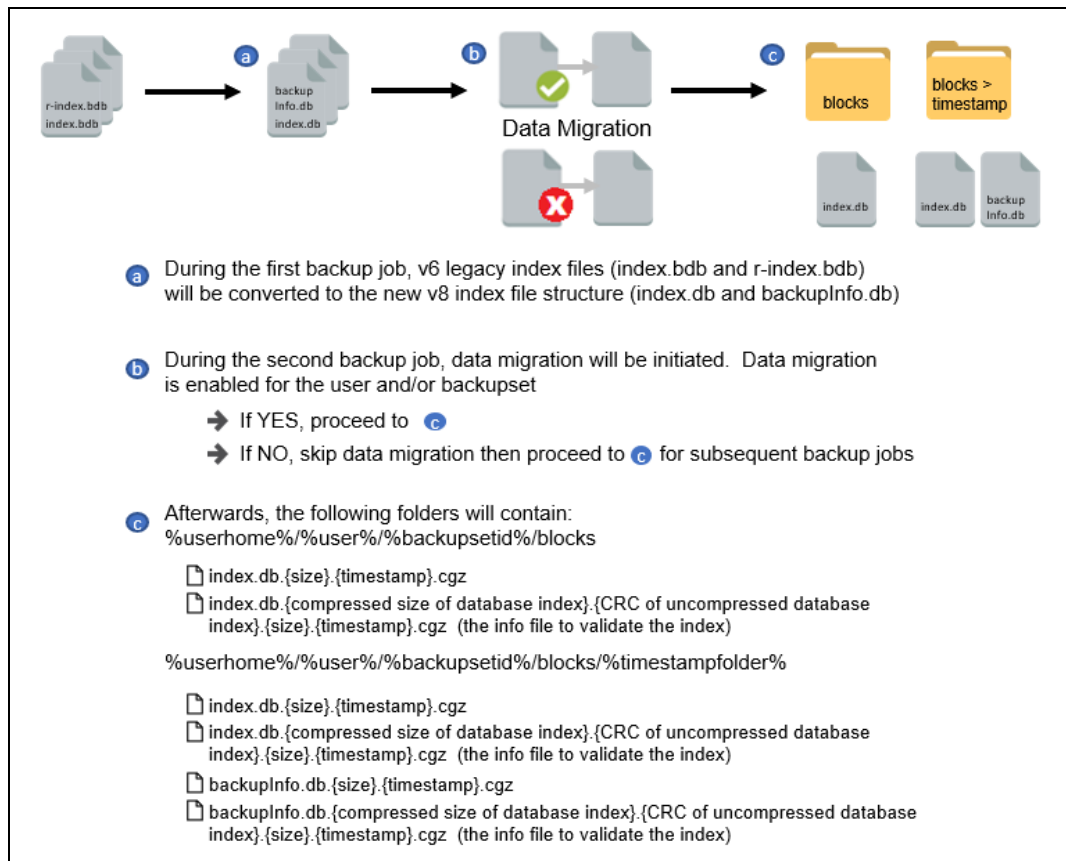


After AhsayOBM/AhsayACB v6.29.0.0 is upgraded to v8.3.0.0 or above the following process will be performed during the first and second backup jobs.

1. During the first backup job after the upgrade, index conversion process will be initiated. The v6 legacy index files (index.bdb & r-index.bdb) will be converted to v8 index format (index.db). This is to allow AhsayOBM/AhsayACB v8.3.0.0 or above to support the handling of v6 legacy backup set data.

2. On the second backup job, the data migration process will be initiated. Data migration will not be performed if it is disabled for the user and/or the backup set. Even though data migration is disabled on your v6 backup set(s), all subsequent backup jobs using v8.3.0.0 or above will backup and store data in the new v8 block format. However, your pre-existing v6 data will remain untouched in v6 format.

---

**NOTE**

For v6 backup sets with Local Copy enabled, only index conversion will be done for the Local Copy destination. The existing data in the Local Copy destination will remain in legacy v6 format. Subsequent backup jobs using v8.3.0.0 or above will backup and store data in the new v8 block format. As v6 to v8 data migration process is an AhsayCBS server routine job, therefore it is only supported for v6 backup data hosted directly on AhsayCBS v8 server.

---

## v6 to v8 Backup Set Data Migration

For partners who are planning to upgrade existing AhsayOBS v6 servers to AhsayCBS v8 or who have already upgraded from AhsayOBS v6 to AhsayCBS v8 and have not yet started or completed v6 to v8 backup set data migration, the conversion of v6 backup set data format to v8, 16 MB or 32 MB blocks format.  For more details on v8 data format and structure, please refer to the following article, [FAQ: Frequently Asked Questions about Ahsay Cloud Backup Suite 8](#).

With the release of AhsayCBS v8.5.2.0 and above, the v6 to v8 backup set data migration has been enhanced to run in a separate process, it was originally included in the AhsayCBS Java process. This means the data migration job will not utilize the Java memory resources of AhsayCBS Java process, as the data migration thread will run in its own independent Java process with its own dedicated Java memory setting. The backup set data migration job will not affect the performance or stability of the AhsayCBS service, even if the data migration job crashes. In the event the data migration job where to hang or become unresponsive the system administrator can terminate the process from the operating system.

As it is now a separate process,  it is easier to allocate resources and to monitor the status of the data migration job. By default, the memory for the data migration is set to 1024 MB Java memory. However, the Java memory allocation can be customized by the system administrator.

For more details on how to set and configure the Java heap size, refer to [AhsayCBS Administrator's Guide - Appendix T: How to set and configure the Java heap size for Data Migration](#).

The status of the data migration process can only be monitored from the operating system on the AhsayCBS server.

## Data Migration Process

This illustrates how to read the information returned by the data migration process from the AhsayCBS server operating system. It is a breakdown of the important factors such as the Java heap size, how to determine if it is a data migration process, the backup set ID used, how to know if it is an AhsayOBM or AhsayACB backup set, and the port used.

Although the example is from AhsayCBS data migration process in Windows, the general layout is similar for Linux, FreeBSD, and AhsayUBS.

For more details on how to monitor Data Migration Job Process, refer to [AhsayCBS Administrator's Guide - Appendix U: How to monitor Data Migration Job Process](#).

```
"C:\Program Files\AhsayCBS\java\bin\java" -Xms128m -Xmx1024m -
XX:MaxDirectMemorySize=1024m -Dsun.nio.PageAlignDirectMemory=true -
Xrs -Djava.library.path=lib/WinX64 -cp "C:\Program
Files\AhsayCBS\lib\cbs.jar;C:\Program Files\AhsayCBS\lib\*;C:\Program
Files\AhsayCBS\lib;C:\Program Files\AhsayCBS\tomcat\lib\*" "-
Dcatalina.base=C:\Program Files\AhsayCBS" RunDataMigration
"C:\Program Files\AhsayCBS" 1620111338046
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0u1zfJhC2cJPReetUm29xImSqBd2
LJatigmkS3ZZgDp5J/D244eThpQ7xlZWwQrXGc=
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0te9GJsuIFiLYAh8wprdjBs
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0uYKdVll6zlR18edTvrKjuPskU4o
KMpOdd1dcnn7kqh8fMSJwRHFGb14Rm/GpS6aKfMSlTYGGyhS4ppp6s3d4eXum/UuA6d7/
4Xt2vdWKlsvg==
QgsSo/AkSjvTlOOVjcF/W9dcqxQKiFnVqI/A9Le/N0vC/gEJqRt1LFZr1Iz3nkhpvKKt6
o7TuA+cseUlimZXV4L4YYYN3w+0qYiyBDCM32Q= OBM 127.0.0.1 8081
```

minimum Java heap size — **-Xms128m**
maximum Java heap size — **-Xmx1024m**
Data Migration Process — **RunDataMigration**
Backup Set ID — **1620111338046**
Client Type — **OBM**
Port — **8081**

| minimum Java heap size | This is the minimum Java heap size setting of the data migration process. The default value is 128 MB. |
|---|---|
| maximum Java heap size | This is the maximum Java heap size setting of the data migration process. The default value is 1024 MB. |
| Data Migration Process | This identifies the process as the data migration process. |
| Backup Set ID | The backup set ID of the backup set currently undergoing data migration. |
| Client Type | ⊙ OBM for AhsayOBM backup set <br> ⊙ ACB for AhsayACB backup set |
| Port | The default port for data migration job is 8081, if this port is taken then AhsayCBS will automatically try the next port 8082 and so on until a free port is found. |

## 8.2.2 Multiple Threads Replication

The calculation for maximum number of replication threads has been changed starting from AhsayCBS v8.3.2.11 or onwards. Instead of using the number of CPU cores in the calculation, this is replaced by the number of CPU sockets. The new formula is:

**Maximum number of replication threads = total number of CPU sockets**

For example, an AhsayCBS server with 2 CPU's will have a maximum of two concurrent replication threads.

This is different from the previous AhsayCBS versions where the number of CPU cores determines the maximum number of replication threads. The formula for previous AhsayCBS versions is:

**Number of concurrent backup set to replicate = Total CPU Cores / 8**

For example, an AhsayCBS server with 8 CPU cores will have a maximum of one concurrent replication thread.

The minimum number of replication thread is 1 while the maximum is 4.

The previous calculation method meant a higher number of replication threads were available. However, on some low-mid range server hardware and storage configurations this had a negative impact on AhsayCBS backup server due to an increased server load, which ultimately affected overall server performance (backup, restore and replication).

<div style="border:1px solid black; padding:10px;">

**NOTE**

If you are upgrading to v8.3.2.11 or onwards from v7, 8.1.x, 8.3.0.x and using default setting for replication thread calculation. Then the number of replication threads will be significantly reduced which may have an impact on replication performance. For example, if AhsayCBS v7, 8.1.x, 8.3.0.x was enabled with replication on a server with single socket CPU with 8 cores. The default number of replication threads = 4, however after upgrade the default number of replication threads = 1 based on the new per CPU socket calculation.

</div>

There is an option to increase the maximum number of replication threads to equal the number of CPU cores for underutilized AhsayCBS backup servers running on high performance hardware and storage configurations with spare network bandwidth capacity. For example, an AhsayCBS server with a single CPU with 8 cores, will be able to get up to 8 concurrent replication threads. For more information regarding this please refer to Chapter 7 of the AhsayCBS Administrator's Guide.

**Maximum number of concurrent Run on Server (Agentless) backup jobs**

After upgrading to AhsayCBS v8.3.4.0 or above the previous setting for the maximum number of concurrent Run on Server (Agentless) backup jobs configured using "`com.ahsay.obs.core.job.ScheduleBackup.MaxConcurrentJob`" in the afc.opt file will no longer apply.

The actual maximum number of concurrent backup jobs will only be limited by AhsayCBS server resources; CPU, RAM, storage performance and internet bandwidth availability.

This was originally based on instructions in the following article FAQ: How do I configure the maximum concurrent run-on-server backup that can be run on my AhsayCBS server

### 8.2.3 AhsayCBS Download Page

With the release of AhsayCBS v8.5.2.0 and above, the layout of the installer download page has been improved for better clarity with the supported installer type listed. For example: macOS AhsayOBM/AhsayACB installers will now show "DMG online installer" and "TAR GZ offline installer" instead of just showing "Download (Online)" and "Download (Offline)" in AhsayCBS pre-v8.5.2.0.



---
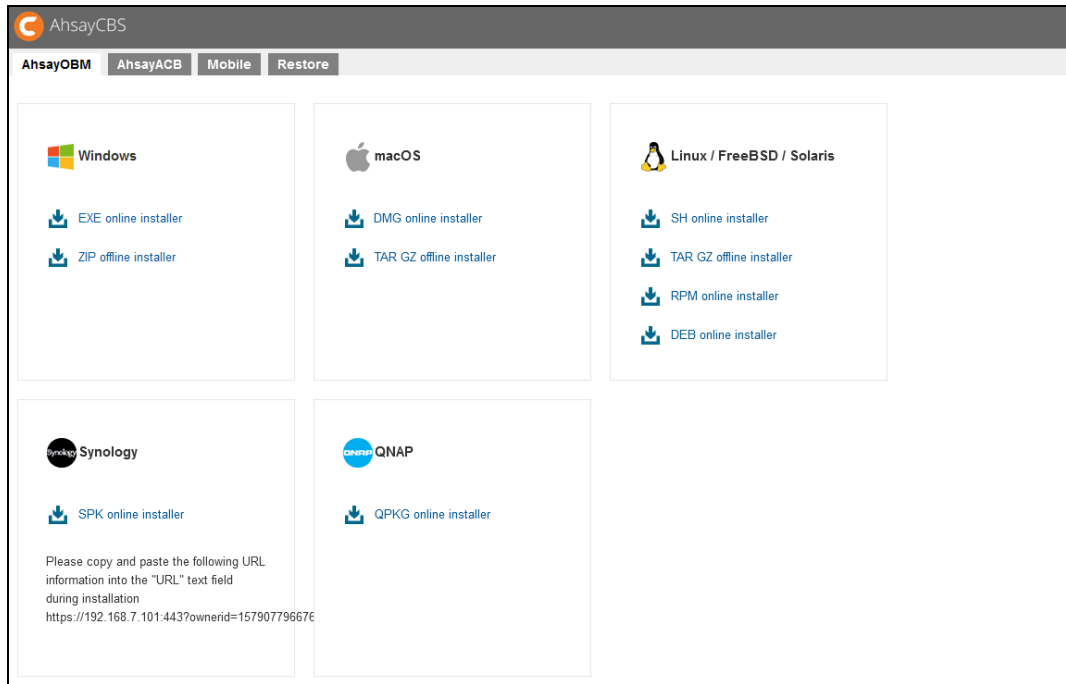
**+NOTE**

For more details on the new AhsayCBS Download page, refer to the AhsayCBS Administrator's Guide:

- Chapter 10.9 – AhsayCBS Download Page – Customization and Limitations
- Chapter 10.9 – AhsayCBS Download Page – Customization Examples
- Appendix S – AhsayCBS Download Page – Customization Instructions

---

## 8.3 Setting up memory for Run on Server (Agentless) Backups

Starting with AhsayCBS v8.3.4.0 or above, the Run on Server (Agentless) Office 365 and Cloud File backup job has its own Java process independent from the main AhsayCBS Java process. For upgraded AhsayCBS with existing Run on Server Office 365 and Cloud File backup sets it is strongly recommended to:

- Reduce the Java heap size of the main AhsayCBS Java process to free up memory so it can be re-allocated to the individual Run on Server (Agentless) Office 365 and Cloud File backup job. For information on how to do this, please refer to this wiki FAQ: How to modify the Java heap size of AhsayCBS.

- Setup Java heap size for the individual Run on Server (Agentless) Office 365 and Cloud File backup jobs if required. In general the default setting, 2048M or 2GB of maximum Java heap size and 128MB of minimum Java heap size should be adequate. To change the Java heap size setting of individual Run on Server (Agentless) Office 365 backup job, please refer to this wiki FAQ: How to modify the Java heap size setting for Run on Server Office / Microsoft 365 backup job.

However, if the default settings are not adequate, the maximum and minimum Java heap size for each Run on Server backup Java process can be configured by the system administrator by following the instructions below.

To configure follow the steps below:

In the example, 2048 and 256 are the maximum and minimum Java heap size.  The size of the Java memory that you will set for each backup job depends on the number of Office 365 user selected in your backup sets and how much RAM your system has
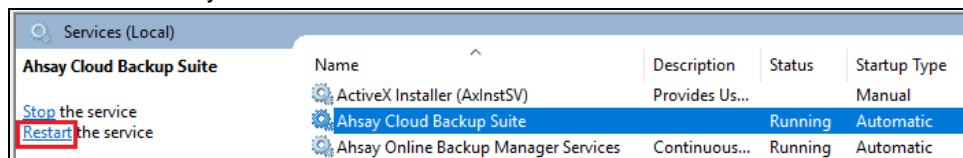
In Windows:

1.  Locate the cbs.opt file in the `$APPLICATION_HOME\conf` folder.
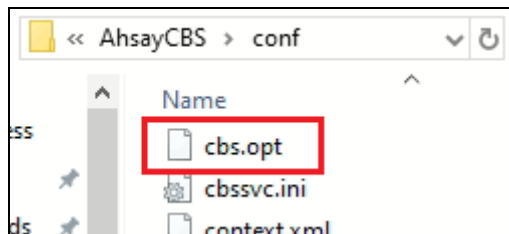


2.  Open the file, add the option
    "`com.ahsay.obs.core.job.ServerRunBackup.Xmx=%value%`" and
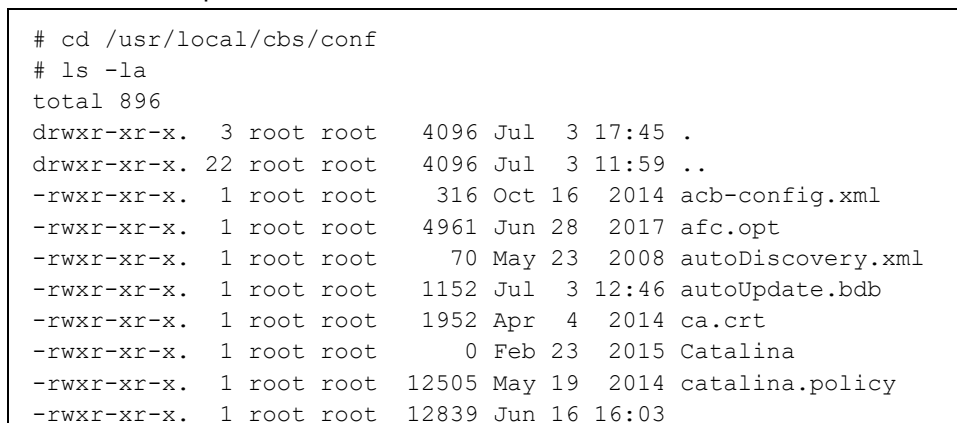    "`com.ahsay.obs.core.job.ServerRunBackup.Xms=%value%`" then save.
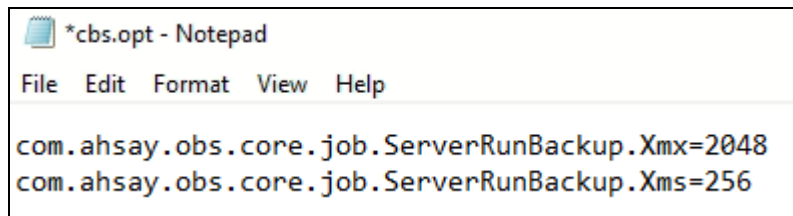


3.  Restart the AhsayCBS service.



In Linux/FreeBSD:

1.  Locate the cbs.opt file in the `/usr/local/cbs/conf` folder.

```
# cd /usr/local/cbs/conf
# ls -la
total 896
drwxr-xr-x.  3 root root   4096 Jul  3 17:45 .
drwxr-xr-x. 22 root root   4096 Jul  3 11:59 ..
-rwxr-xr-x.  1 root root    316 Oct 16  2014 acb-config.xml
-rwxr-xr-x.  1 root root   4961 Jun 28  2017 afc.opt
-rwxr-xr-x.  1 root root     70 May 23  2008 autoDiscovery.xml
-rwxr-xr-x.  1 root root   1152 Jul  3 12:46 autoUpdate.bdb
-rwxr-xr-x.  1 root root   1952 Apr  4  2014 ca.crt
-rwxr-xr-x.  1 root root      0 Feb 23  2015 Catalina
-rwxr-xr-x.  1 root root  12505 May 19  2014 catalina.policy
-rwxr-xr-x.  1 root root  12839 Jun 16 16:03
```

```
catalina.properties
-rwxr-xr-x.  1 root root  19366 Jul  3 15:15 cbs.json
-rwxr-xr-x.  1 root root  19371 Jul  3 15:15 cbs.json.1
-rwxr-xr-x.  1 root root  19649 Jul  3 12:27 cbs.json.10
-rwxr-xr-x.  1 root root  19649 Jul  3 12:27 cbs.json.11
-rwxr-xr-x.  1 root root  19371 Jul  3 14:25 cbs.json.2
-rwxr-xr-x.  1 root root  19375 Jul  3 14:25 cbs.json.3
-rwxr-xr-x.  1 root root  19375 Jul  3 14:21 cbs.json.4
-rwxr-xr-x.  1 root root  19374 Jul  3 14:21 cbs.json.5
-rwxr-xr-x.  1 root root  19657 Jul  3 13:58 cbs.json.6
-rwxr-xr-x.  1 root root  19653 Jul  3 13:58 cbs.json.7
-rwxr-xr-x.  1 root root  19653 Jul  3 13:50 cbs.json.8
-rwxr-xr-x.  1 root root  19649 Jul  3 13:50 cbs.json.9
-rwxr-xr-x.  1 root root   9667 Jul  3 14:17 cbs.opt
```

2.  Open the file, using a text editor add the option
    "`com.ahsay.obs.core.job.ServerRunBackup.Xmx=%value%`" and
    "`com.ahsay.obs.core.job.ServerRunBackup.Xms=%value%`" then save.

```
com.ahsay.obs.core.job.ServerRunBackup.Xmx=2048
com.ahsay.obs.core.job.ServerRunBackup.Xms=256
```

3.  Restart the AhsayCBS service

```
# cd /usr/local/cbs/bin
# sh restart.sh
```

In AhsayUBS:

1.  Locate the cbs.opt file in the `/ubs/mnt/eslsfw/obsr/conf` folder.

```
# cd /ubs/mnt/eslsfw/obsr/conf
# ls -la
 total 925
 drwxr-xr-x   3 root  wheel     142 Jul  9 02:15 .
 drwxr-xr-x  13 root  wheel      13 Jul  8 08:25 ..
 -rwxr-xr-x   1 root  wheel     316 Nov 19  2018 acb-config.xml
 -rwxr-xr-x   1 root  wheel    4966 Jul  8 08:35 afc.opt
 -rwxr-xr-x   1 root  wheel      70 Nov 19  2018
 autoDiscovery.xml
 -rwxr-xr-x   1 root  wheel    1152 Jul  8 08:48 autoUpdate.bdb
 -rwxr-xr-x   1 root  wheel    1952 Nov 19  2018 ca.crt
 -rwxr-xr-x   1 root  wheel       0 Nov 19  2018 Catalina
 -rwxr-xr-x   1 root  wheel   12505 Nov 19  2018 catalina.policy
 -rwxr-xr-x   1 root  wheel    8008 Nov 19  2018
 catalina.properties
 -rwxr-xr-x   1 root  wheel   19671 Jul  8 10:25 cbs.json
 -rwxr-xr-x   1 root  wheel   19672 Jul  8 10:25 cbs.json.1
 -rwxr-xr-x   1 root  wheel   18755 Jul  8 08:43 cbs.json.10
 -rwxr-xr-x   1 root  wheel   19028 Jul  8 08:28 cbs.json.11
 -rwxr-xr-x   1 root  wheel   19672 Jul  8 09:09 cbs.json.2
 -rwxr-xr-x   1 root  wheel   19672 Jul  8 09:09 cbs.json.3
 -rwxr-xr-x   1 root  wheel   19373 Jul  8 08:46 cbs.json.4
 -rwxr-xr-x   1 root  wheel   19169 Jul  8 08:46 cbs.json.5
 -rwxr-xr-x   1 root  wheel   19169 Jul  8 08:44 cbs.json.6
 -rwxr-xr-x   1 root  wheel   19208 Jul  8 08:44 cbs.json.7
 -rwxr-xr-x   1 root  wheel   19208 Jul  8 08:43 cbs.json.8
 -rwxr-xr-x   1 root  wheel   18958 Jul  8 08:43 cbs.json.9
 -rwxr-xr-x   1 root  wheel    9666 Jul  8 08:54 cbs.opt
```

2. Open the file, using a text editor add the option
"`com.ahsay.obs.core.job.ServerRunBackup.Xmx=%value%`" and
"`com.ahsay.obs.core.job.ServerRunBackup.Xms=%value%`" then save.

```
com.ahsay.obs.core.job.ServerRunBackup.Xmx=2048
com.ahsay.obs.core.job.ServerRunBackup.Xmx=256
```

3. Restart the AhsayCBS service

```
# cd /ubs/mnt/esfmfw/obsr/system/obsr/bin
# sh restart.sh
```

For more information regarding the Run on Server backup Java process please refer to the AhsayCBS Quick Start Guide and AhsayCBS Administrator's Guide.

## 8.4    Re-authorize Dropbox app
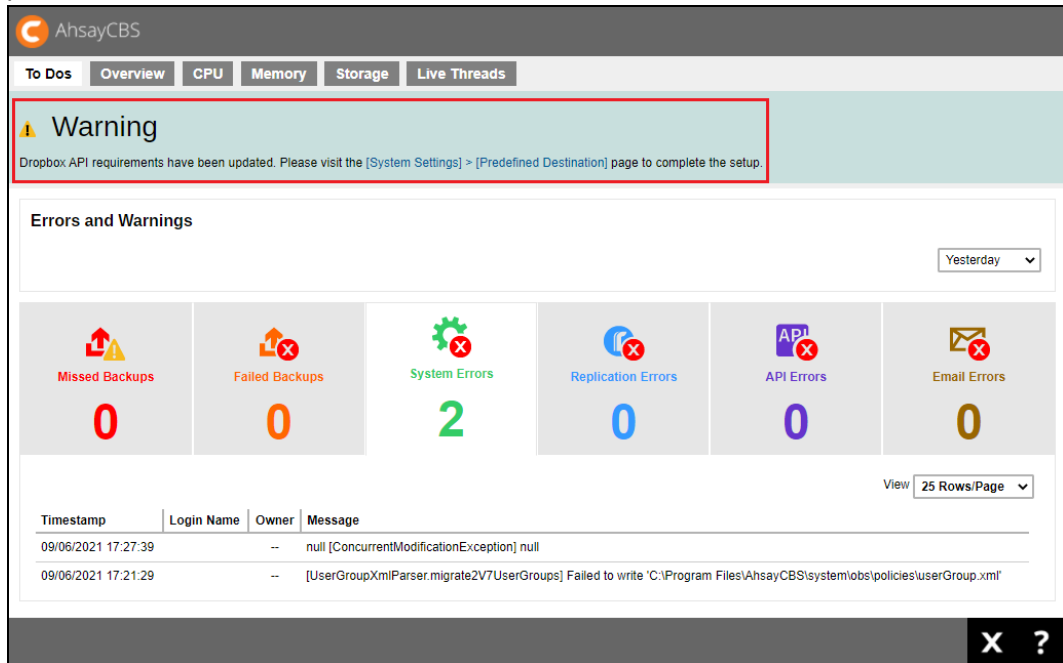
Due to the update of OAuth 2.0 API by Dropbox Inc. these changes have been updated in AhsayCBS v8.5.4.54 or above in respect to handling of existing destination and backup source using Dropbox.  For Dropbox predefined and standard storage destinations created on pre-v8.5.4.54 AhsayCBS/AhsayOBM/AhsayACB, as well as Cloud File backup sets for Dropbox, you need to re-authorize the app to continue using it.  All related backup/restore will no longer work properly until it is re-authorized.

Here are four ways to do this:

- from the Predefined Destination page

- from the Cloud File Agentless backup set using Dropbox as a backup source

- from Backup Sets page in AhsayOBM/AhsayACB when using Dropbox as a backup source

- from Backup Sets page in AhsayOBM/AhsayACB when using Dropbox as a standard destination

## 8.4.1 Re-authorize in Predefined Destination page

You may check in the **Monitoring** > **Dashboard** > **To Dos** if there are any invalid Dropbox predefined destination that needs to be re-authorized.
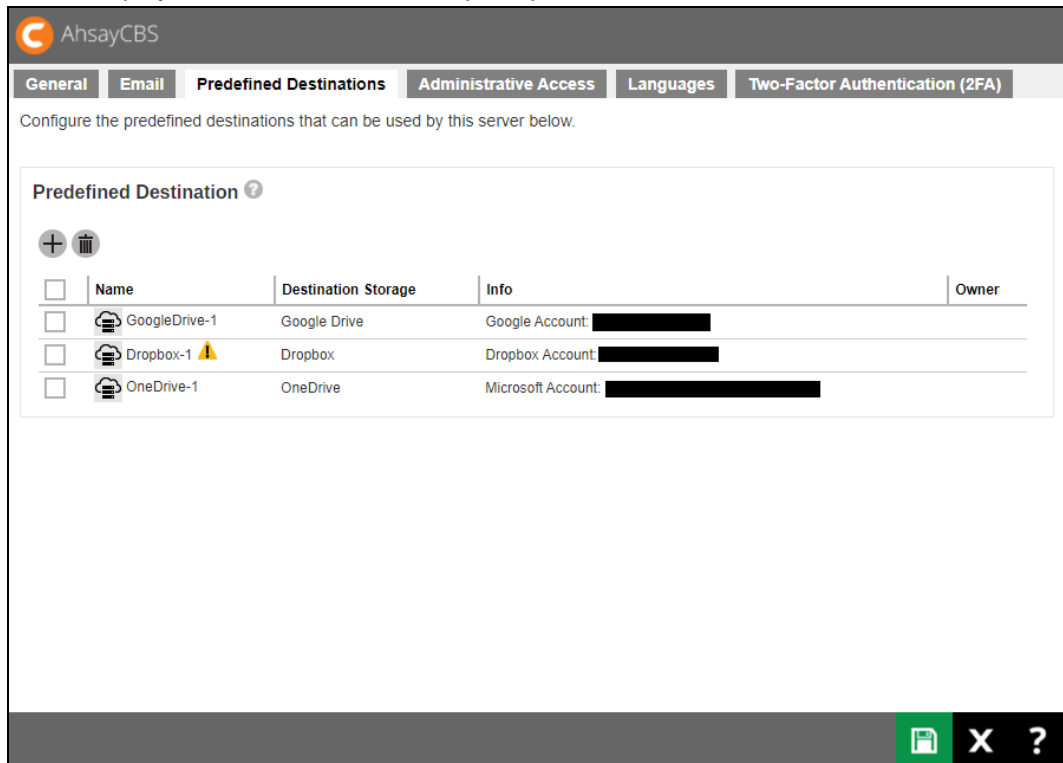


You may click the [System Settings] > [Predefined Destination] link to be redirected to the Predefined Destination page.

Or you may go to **System Settings** > **Basic** > **Predefined Destinations**. A warning icon will be displayed beside the invalid Dropbox predefined destination.
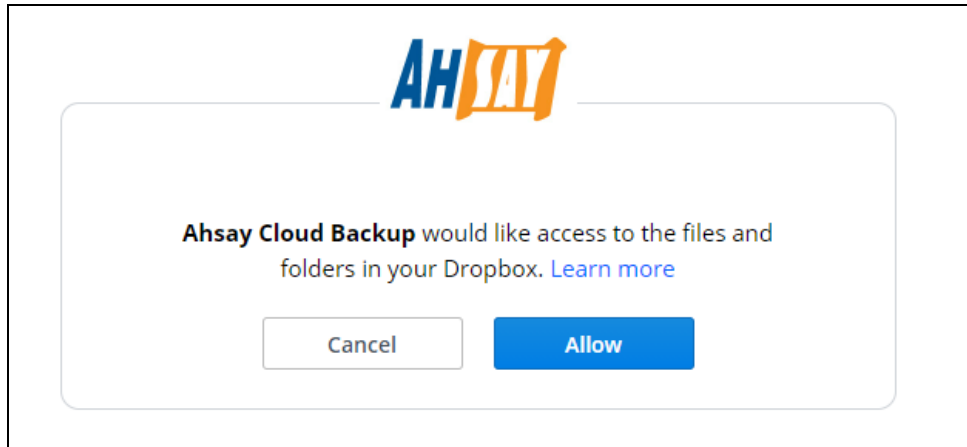
Follow the instructions below to re-authorize your Dropbox predefined destination:

1.  Click the Dropbox predefined destination.  Click **confirm** to continue.
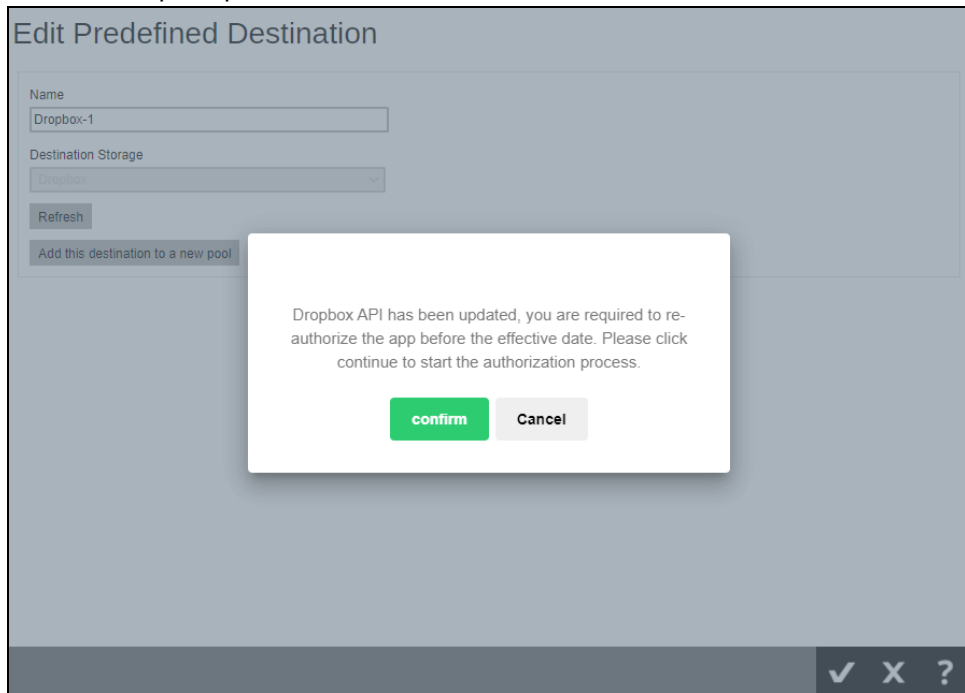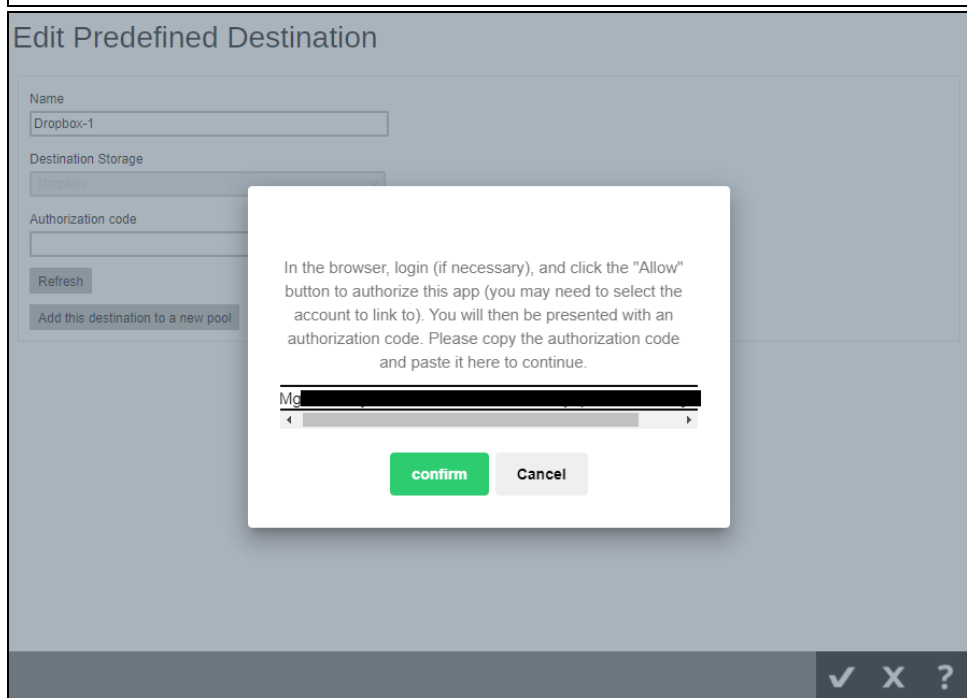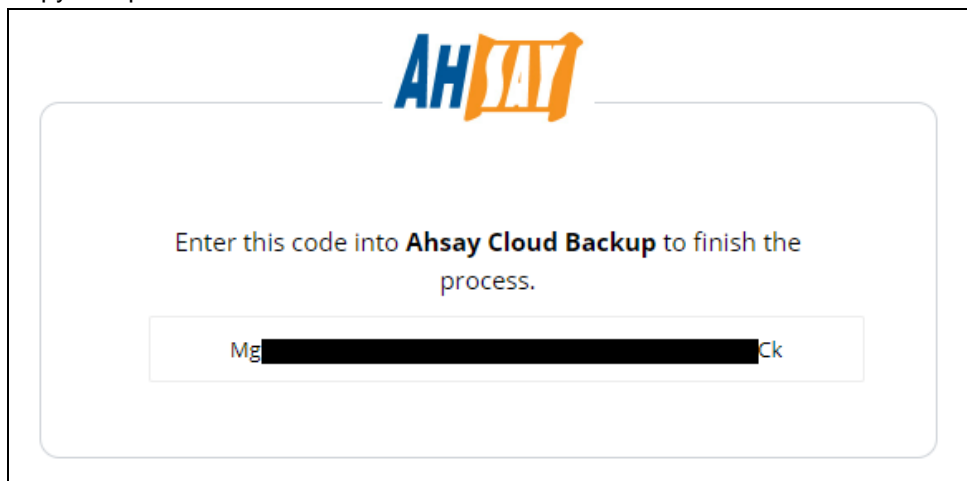


2.  Login to your Dropbox account and allow Ahsay access to the files and folders in your account.
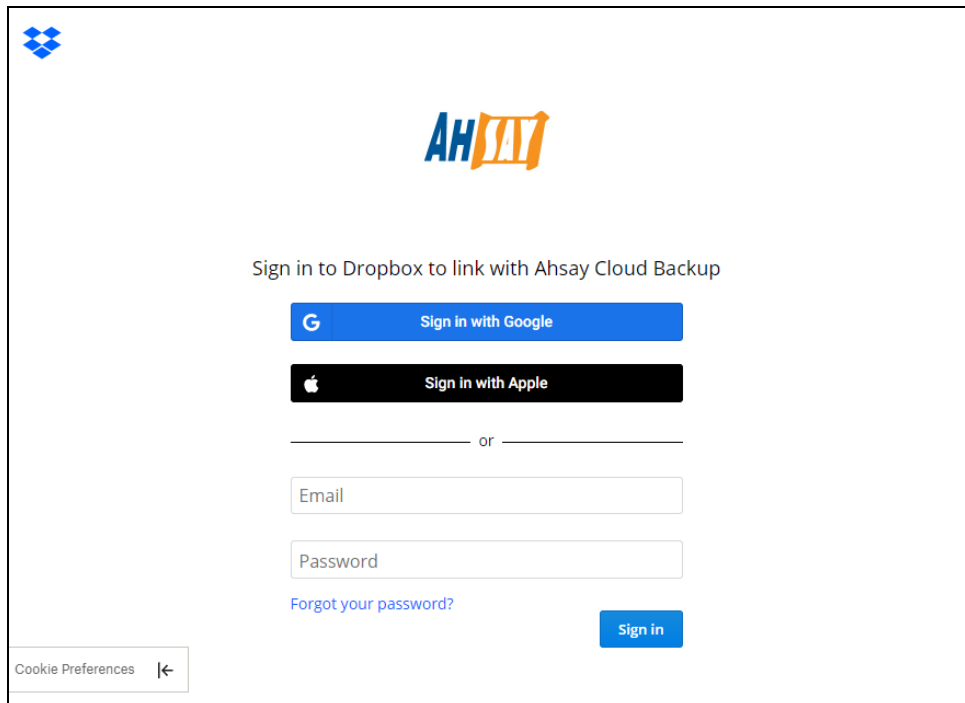
3. Copy and paste the code and click **confirm** to continue.



Edit Predefined Destination

Name

Dropbox-1

Destination Storage

Dropbox

Authorization code

Refresh

Add this destination to a new pool

In the browser, login (if necessary), and click the "Allow" button to authorize this app (you may need to select the account to link to). You will then be presented with an authorization code. Please copy the authorization code and paste it here to continue.

Mg

confirm    Cancel

4. The warning icon will now be removed, click **Save** to finish setup.



The warning will also be gone from the **To Dos** page.

## 8.4.2 Re-authorize in Cloud File Agentless backup set using Dropbox as a backup source

Re-authorizing Dropbox for Cloud File Agentless backup sets may be done in AhsayCBS or AhsayOBM/AhsayACB.

1. A warning will be displayed when you try to access a backup set using Dropbox as a backup source. Click **confirm** to continue.



| NOTE |
|---|
| This warning will also be displayed if you access the backup set in AhsayOBM/AhsayACB. |

2. Login to your Dropbox account and allow Ahsay access to the files and folders in your account.





3. Copy and paste the code.  Click **confirm** to finish the setup.
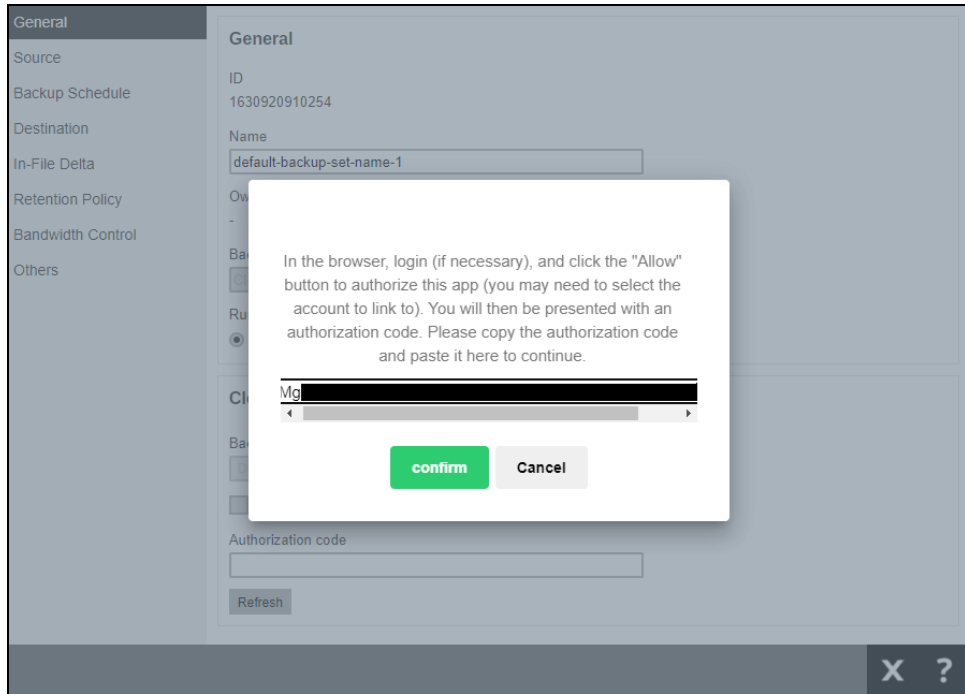
### 8.4.3 Re-authorize in Backup Sets page in AhsayOBM/AhsayACB when using Dropbox as a backup source

Re-authorizing Dropbox for Cloud File Agent-based backup sets may be done in AhsayOBM/AhsayACB or AhsayCBS. Steps in doing this is similar for AhsayOBM and AhsayACB, we will be using AhsayOBM as an example for the instructions.
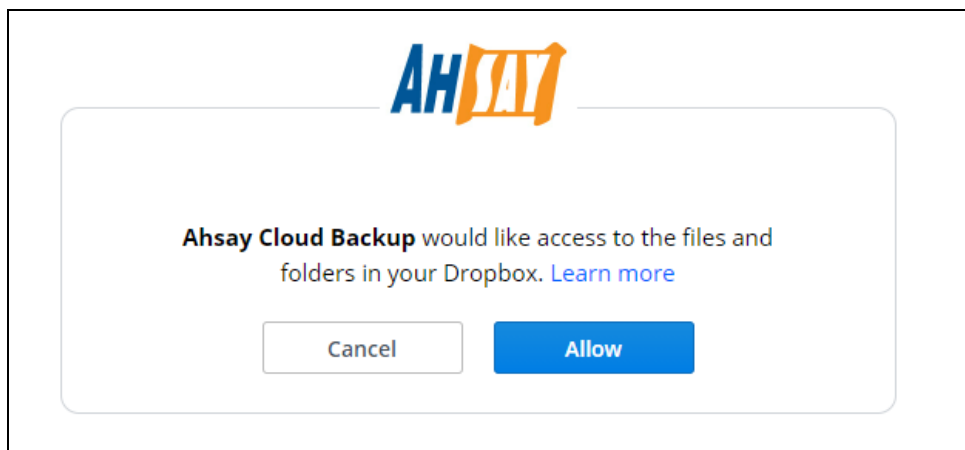
1. A warning will be displayed when you try to access a backup set using Dropbox as a backup source. Click **Continue**.
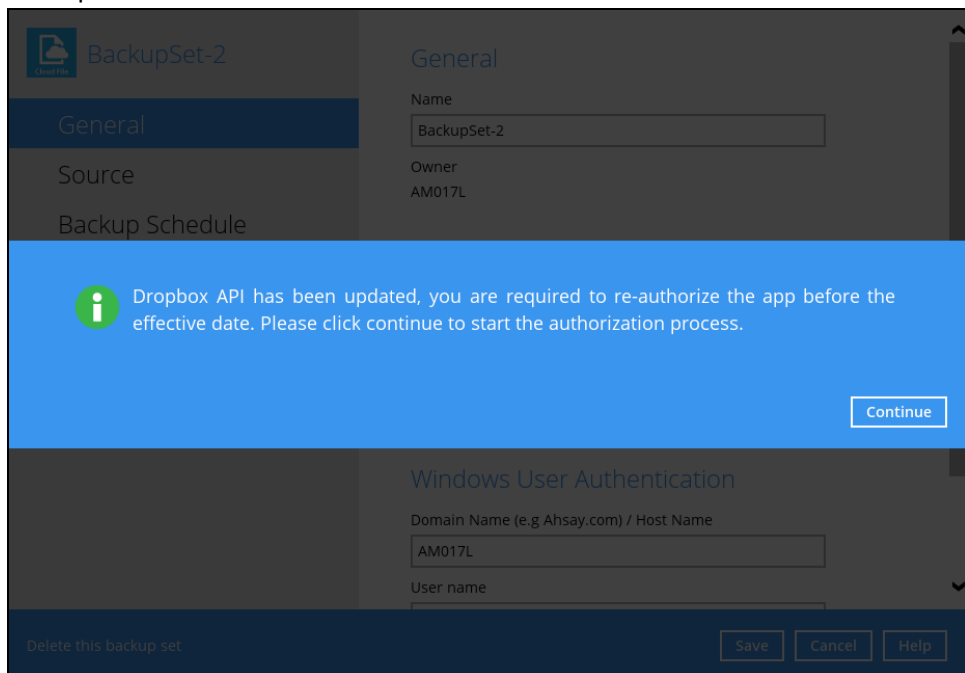
| **NOTE** |
|---|
| This warning will also be displayed if you access the backup set in AhsayCBS. |
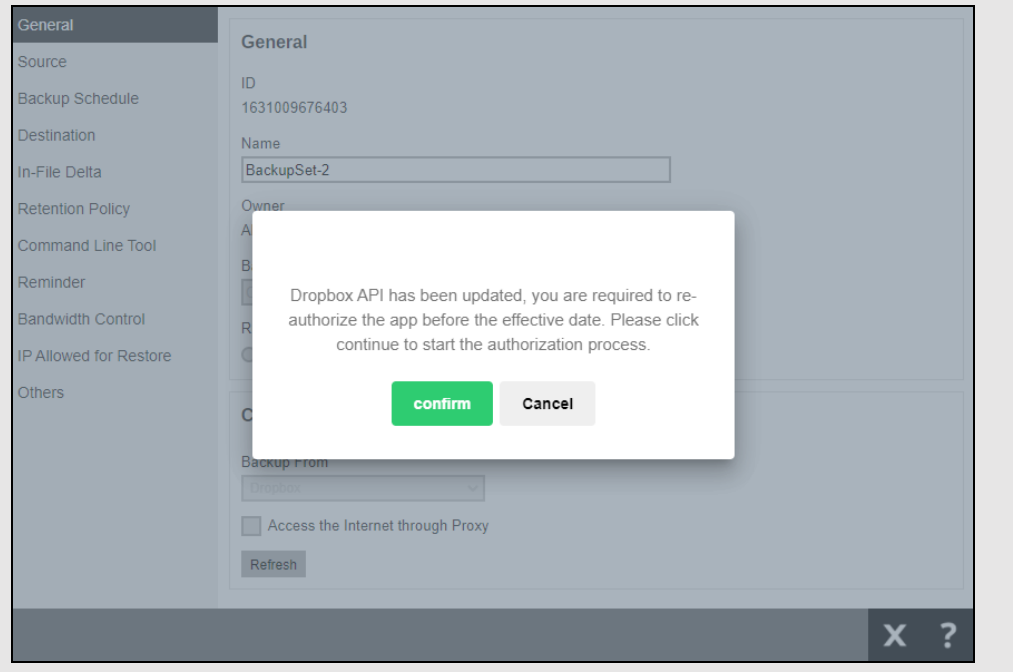


2. Login to your Dropbox account and allow Ahsay access to the files and folders in your account.
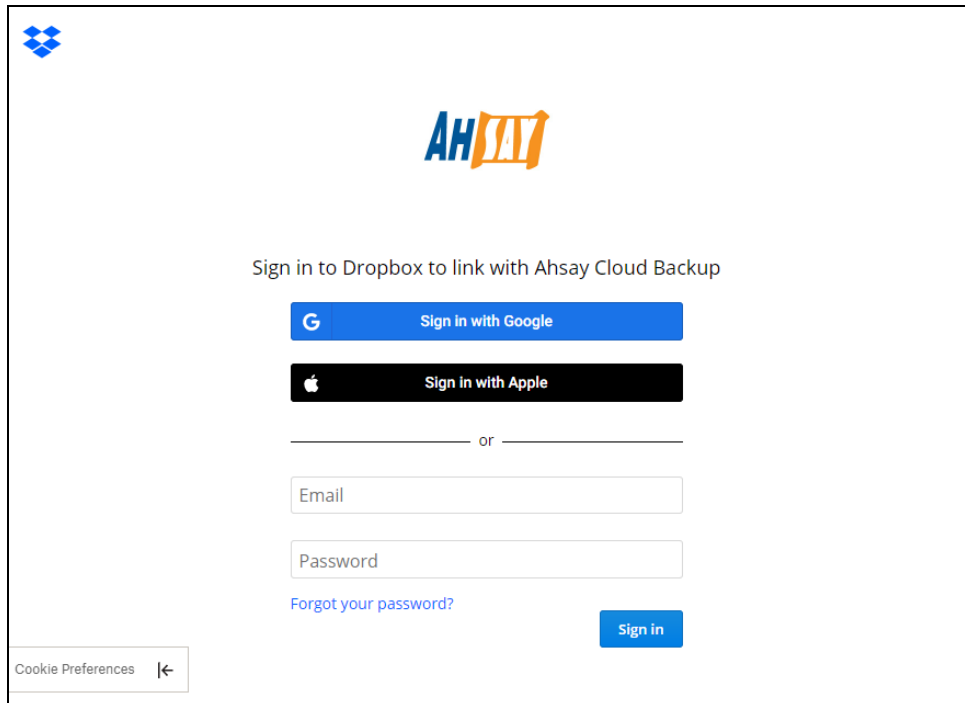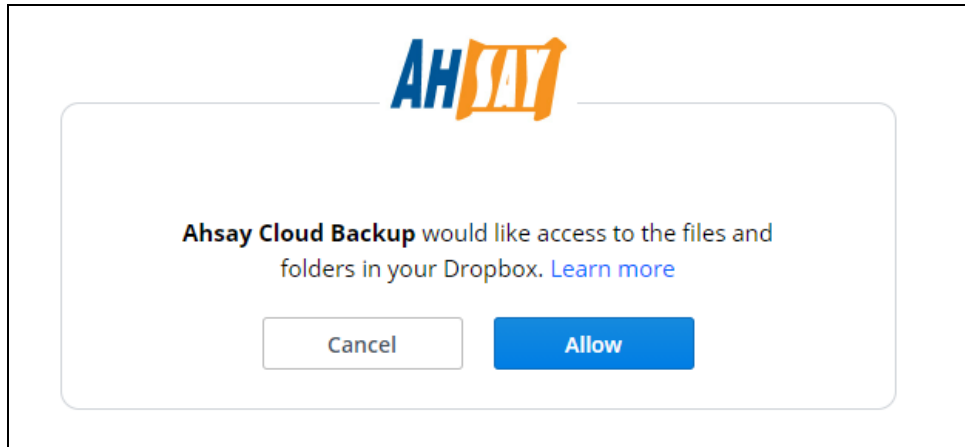
3. Copy and paste the code, then click **OK** to continue.
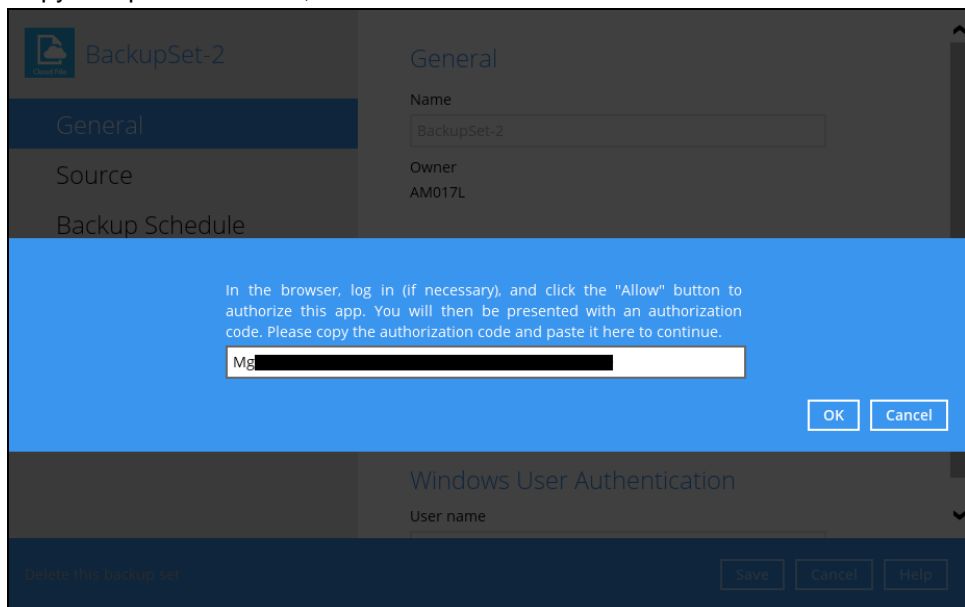


4. Click **Save** to finish the setup.
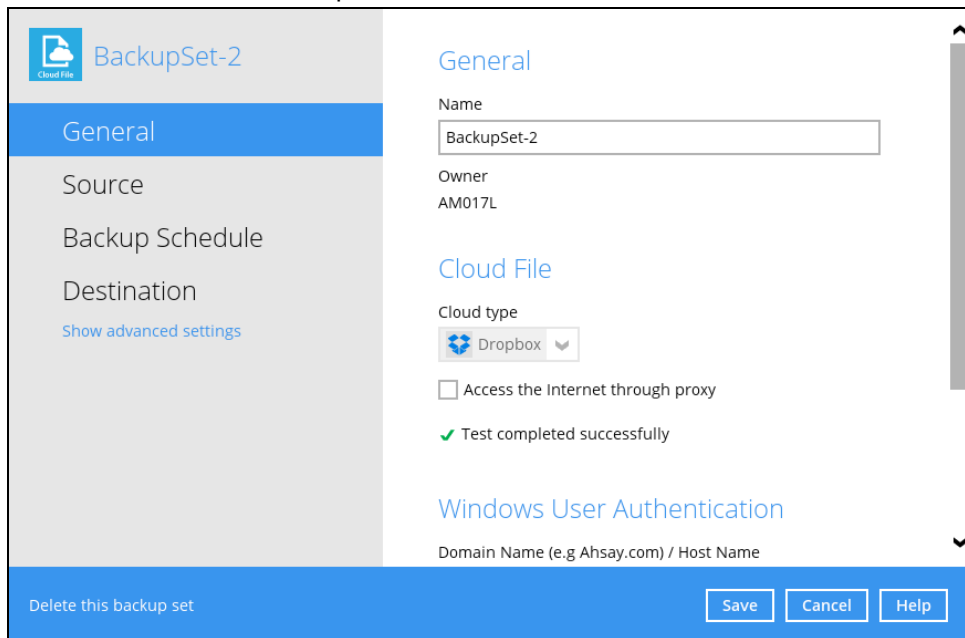
### 8.4.4 Re-authorize in Backup Sets page in AhsayOBM/AhsayACB as a standard destination

1.  A warning will be displayed when you try to access a backup set using Dropbox as a standard destination.   Click **Continue**.
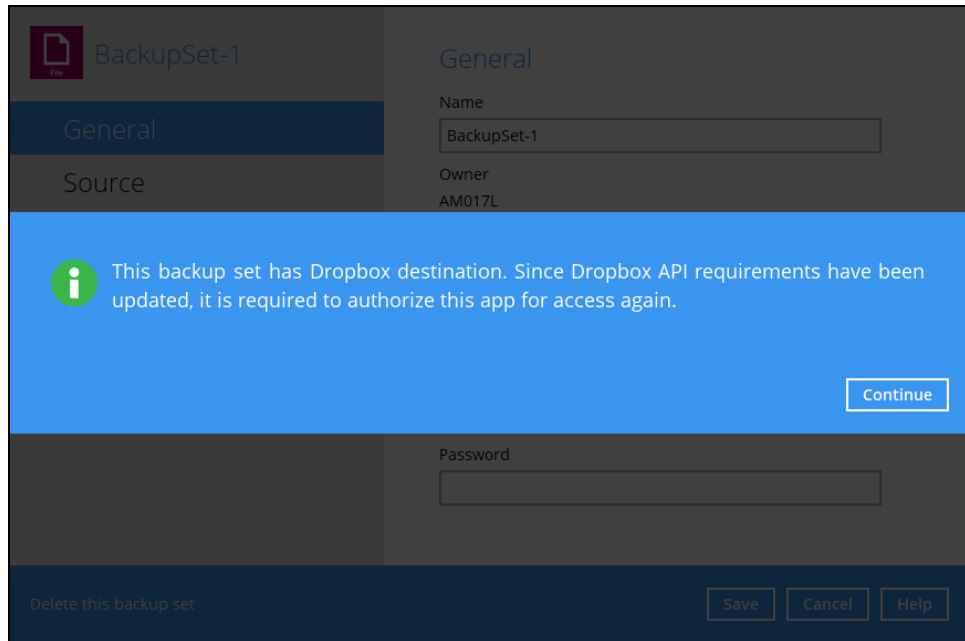


2.  Click the Dropbox destination that needs to be re-authorized then click **Continue**.
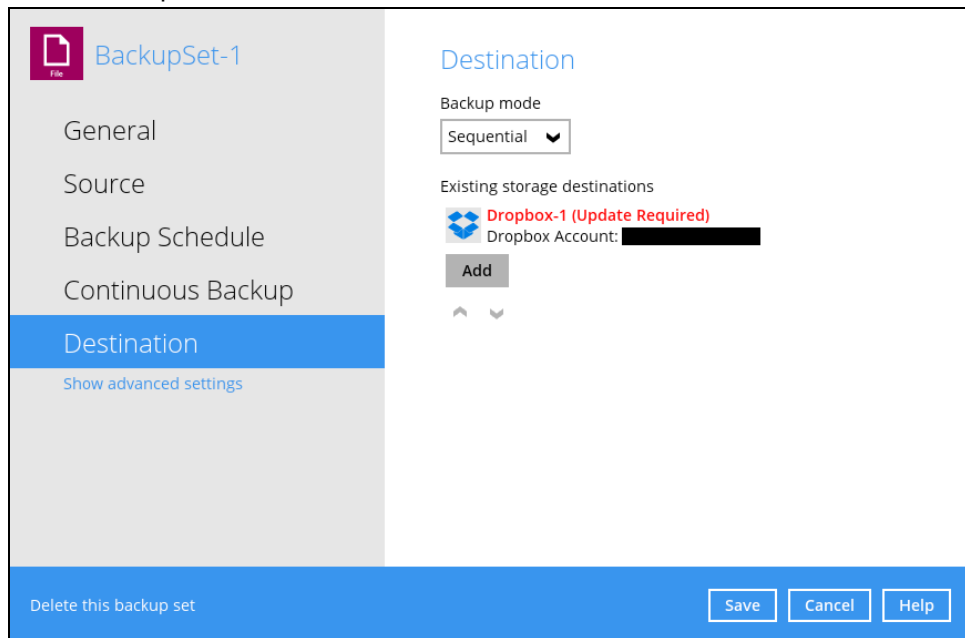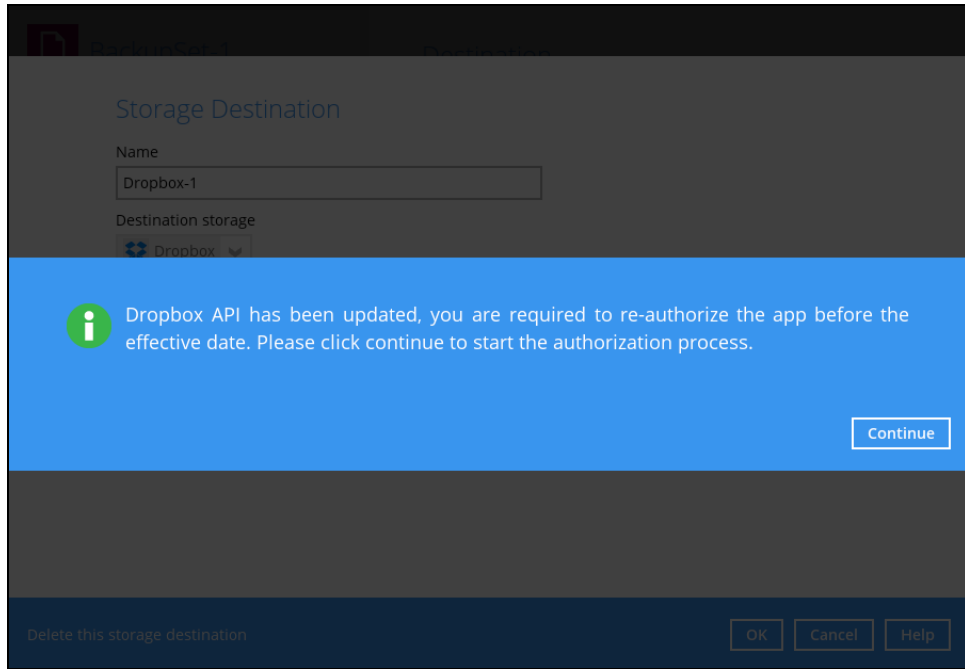
3. Login to your Dropbox account and allow Ahsay access to the files and folders in your account.

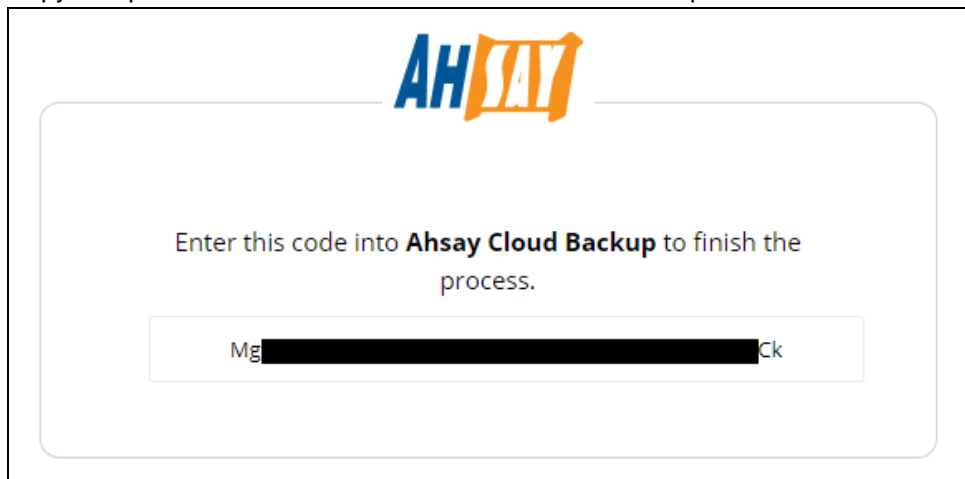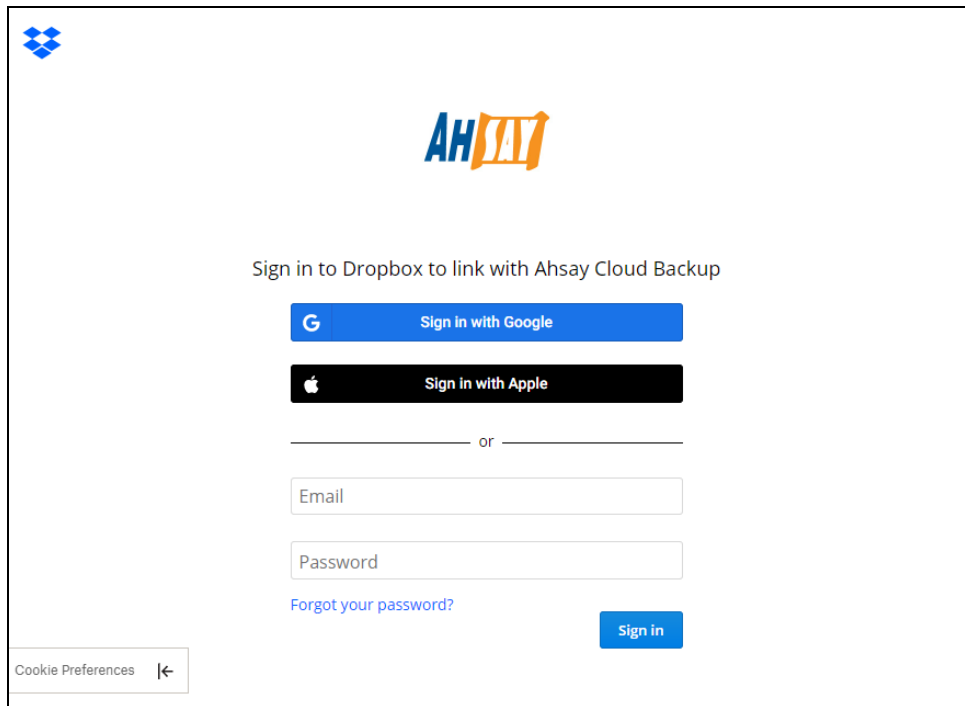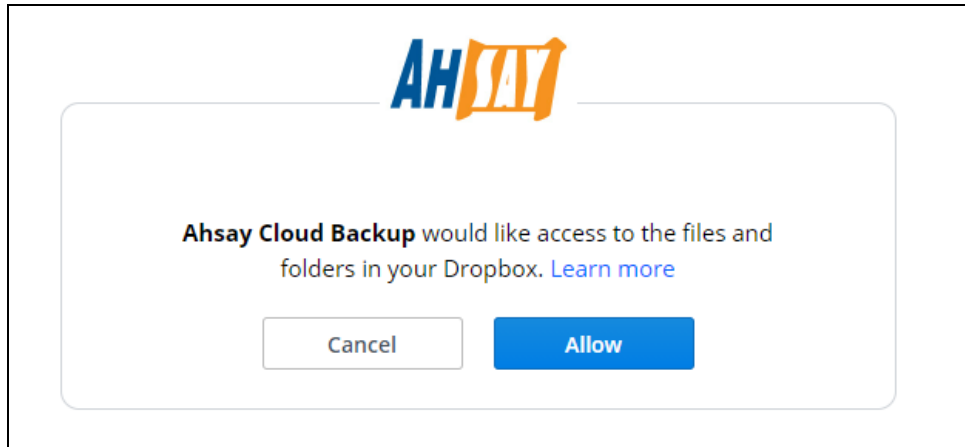4. Copy and paste the code, then click **OK** to continue.
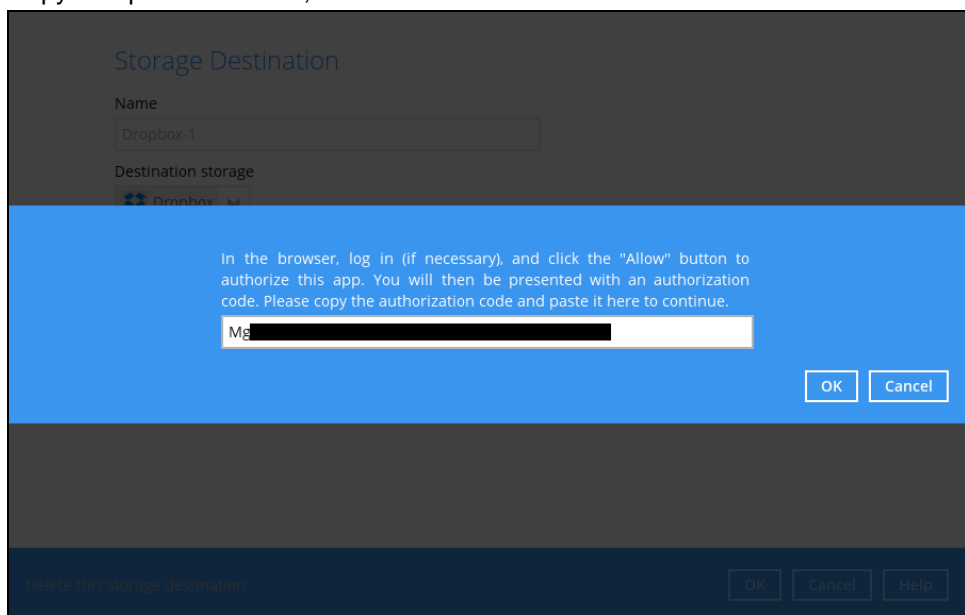
5. Click **OK** then **Save** to finish the setup.

## Storage Destination

Name

Dropbox-1

Destination storage

Dropbox ▼

☐ Access the Internet through proxy

✔ Test completed successfully

Delete this storage destination          OK    Cancel    Help

---

**BackupSet-1**

General

Source

Backup Schedule

Continuous Backup

**Destination**

Show advanced settings

## Destination

Backup mode

Sequential ▼

Existing storage destinations

**Dropbox-1**
Dropbox Account:▮▮▮▮▮▮▮▮▮▮

Add

Delete this backup set          Save    Cancel    Help

## 8.5 Post Upgrade Tasks (Optional)

### 8.5.1 Branding on AhsayCBS

If you are already on AhsayCBS v7.17.2.2 or above, all your existing branding will be carried forward to the latest version in the previous upgrade steps.

**However, as with each new release, there may be new branding properties or image requirements.** After upgrade, you should review your branding settings, and update accordingly.

In order to build Branded CBS or Branded Clients, you must have had purchased the Rebrand Option module, which then covers any licenses under your account;. And you must continue to maintain valid Support maintenance.

After upgrading your AhsayCBS, you will need to generate the client installers again by following the instructions below:

1. Logon to the AhsayCBS web management console.

2. Click into [System Settings] > [Basic] > [Administrative Access].

3. Click on any "admin" user. (Example, "system")

> **NOTE**
> If you have branded sub-admin, you will need to repeat these steps individually.

4. Click into the [Rebrand Clients] page.

5. Review and verify your branding text properties and all custom images.

   **Important:** If you made changes, remember to Save all the way through to main menu, then return to continue with next step.

6. Click into the [Build Installers] tab, click on the [Build Branded Client] button to generate branded "OBM" and "ACB" installers.

   Please be patient, the installer generation process should take around 15 to 30 minutes. However, the generation time would depend on the traffic condition on the Ahsay customization engine. If there's no progress after 60 minutes, you may want to contact Ahsay.

   After the installer is generated. You can download branded "OBM" and "ACB" from the Download page for testing, before reenabling AUA for each user.

   For further information on how to brand the AhsayCBS interface, reseller interface or AhsayOBM/AhsayACB installers, please refer to the Rebranding the AhsayCBS section in the AhsayCBS Administrator's Guide for details.

> **Build My Branded CBS Installer**
>
> Subscribe our service to enjoy a smooth and effortless upgrade experience. Click here to learn more about our offered service to build the latest release of CBS with your branding for use with your upgrade, or visit the Ahsay Services to review any of other offered services.

### 8.5.1.1 Office 365 Customization

For AhsayCBS v8.5.0.0 or above, Office 365 Backup Customization has been added. It allows for customization of Authorization code and Admin consent endpoint screens for the Office 365 Global region which is displayed when creating Office 365 backup sets on AhsayCBS/AhsayOBM/AhsayACB. You must first set it up in **Backup / Restore > User, Groups & Policies > Policy Group > %policy_name% > Backup Set Settings > Office 365 Backup Customization**. For more information on how to do this please refer to page 292 of Chapter 6.2.3 in the AhsayCBS Administrator's Guide.

### 8.5.1.2 Ahsay Mobile

Ahsay Mobile has been released which can be used to backup photos and videos on a mobile device. It can also be used for Two-Factor Authentication. Currently the branding of Ahsay Mobile can only be done by Ahsay. So if you are interested in branding the Ahsay Mobile, you must engage our Ahsay Mobile Branding Service. Please contact our sales team to obtain a service quotation by email at sales-kb@ahsay.com or call our International Sales Hotline +852 3580 8091. For more information on this please refer to Chapter 10.8 of the AhsayCBS Administrator's Guide.

### 8.5.1.3 Free Trial Registration and Save Password Customization

While for AhsayCBS v8.5.2.35 or above, there two additional GUI features that can be customized for AhsayOBM/AhsayACB. These are the Free Trial registration and Save password options. The Free Trial registration option can now be either displayed or hidden from the startup page. While the Save password option can also be either displayed or hidden from the login page and Profile > Authentication page. This can be customized in **System Settings > Basic > Administrative Access > %system_user_name% > Rebrand Clients > Application Settings – AhsayOBM** and **System Settings > Basic > Administrative Access > %system_user_name% > Rebrand Clients > Application Settings – AhsayACB**. For more details, please refer to page 108 of Chapter 5.1.4 in the AhsayCBS Administrator's Guide.

## 8.5.2 Hiding the VM Run Direct Tile on AhsayCBS User web console

For partners who do not offer VMware backups and/or do not provide VM Run Direct recovery from AhsayCBS, the VM Run Direct Tile on the AhsayCBS User web console can be hidden by editing the cbs.css file which is located in the `$APPLICATION_HOME\webapps\cbs\include` folder. For details on how to do this please refer to Appendix V of the AhsayCBS Administrator's Guide.

## 8.5.3 Hotfix Installation

### Hotfix Release Program

Ahsay Hotfix Release Program is part of our continuing efforts to provide our partners with quick resolutions for reported software issues. You may actively review the changelog and download the latest hotfix via Ahsay Partner Portal. **A valid partner portal login account is required**.

## Hotfix Release History

**Disclaimer**

Ahsay hotfix release program is part of our continuing efforts to provide our partners with quick resolutions for reported software issues.

In order to improve the turnaround time, we have bypassed our regular QA acceptance testing cycle however the hotfixes have been thoroughly tested by our developers.

Although our developers have made every effort to ensure the stability of the hotfix releases, **as a best practice we recommend partners:**

  1. Conduct some basic testing before rolling out hotfixes to any production systems.
  2. Deploy hotfixes to only the affected production systems.

### Hotfixes for v8.5.2.33 (Last Reviewed: 10 Jun 2021)

This page is updated every Monday and Thursday. If such Monday or Thursday is a Holiday, the update will be made on the next Working Day.

Standard Support Calendar at a Glance

### Instructions

**Note**

Please make sure you have valid maintenance before following the instructions below to patch and apply the hotfixes. Otherwise, your AhsayCBS may stop functioning due to "Support Expired" error.

As the hotfix is based on v8.5.2.33 , you would need to patch your Ahsay Products to v8.5.2.33 before applying the hotfix. Please refer to the instructions on the following pages to patch your AhsayCBS/AhsayOBM/AhsayACB to v8.5.2.33 :

FAQ: How to install the latest patch set for AhsayCBS?

This latest page in the Ahsay Partners is updated every Monday and Thursday. If Monday or Thursday is a public holiday, the update will be made on the next available business day.

The AhsayCBS hotfix package includes the AUA components which will allow you to deploy the latest AhsayOBM/AhsayACB hotfixes to supported operating systems using Auto Upgrade.

In order to improve the turnaround time, the hotfixes have been thoroughly tested by our developers, but has not yet passed QA acceptance testing cycles.

Although our developers have made every effort to ensure the stability of the hotfix releases, as a best practice we recommend partners:

1. Conduct some basic testing <u>before</u> rolling out hotfixes to any production systems.

2. Retain a rollback copy of installation prior to deploying hotfix.

3. Deploy hotfixes to only the affected production systems.

If you elect not to install hotfixes, then you may wait for the next public release version which will roll-up earlier hotfix into latest release.

# 9  Downgrade AhsayCBS

> **IMPORTANT**
>
> The only acceptable time when you can successfully downgrade to previous installation, is if you just upgraded to latest release but found issues with the upgrade. If several days or longer has passed, we do not advise downgrade as there would have been many changes to both the User Home and configuration, which could corrupt your environment if you downgrade.
>
> Also, downgrade of AhsayCBS v8.5.0.0 or above may result in data loss.  As pre-v8.5.0.0 versions of AhsayCBS/AhsayOBM/AhsayACB does not support v8.3 index.db structure.
>
> In the following scenarios, backup sets will need to be re-created and data needs to be uploaded again after downgrade from v8.5.0.0 or above:
>
> 1.  If AhsayOBM/AhsayACB clients have already been upgraded to v8.5.0.0 or above and v8.3 conversion has already been completed for the backup sets.
>
> 2.  New backup sets have been created using AhsayOBM/AhsayACB v8.5.0.0 or above.

**Assumption:** You made a rollback copy of previous AhsayCBS binaries/system home before upgrading, and is located in:

### *Windows*

>     C:\Program Files\AhsayCBS717050

### *Linux/Solaris/FreeBSD*

>     /usr/local/cbs717050

Substitute our example path with your installation path.

**Follow the steps below to downgrade:**

*Windows:* - If you **had previously** retained a rollback copy of your previous installation prior to upgrade:

1.  Logon with Windows administrator privileges (i.e. administrator).

2.  Stop CBS Service

3.  Rename **C:\Program Files\AhsayCBS** , to **C:\Program Files\AhsayCBS.NEW**

4.  Rename **C:\Program Files\AhsayCBS717050**, to **C:\Program Files\AhsayCBS**

5.  From **C:\Program Files\AhsayCBS.NEW**, copy to **C:\Program Files\AhsayCBS** the following:

    - conf

    - system

    - logs

    - user
      You may omit moving the "*user*" folder, if your User Home path is not a directory inside your CBS installation path.

6.  Start CBS Service

7.  Login to CBS Web Management Console, verify version and users exist.

8.  If you are branded, it may be necessary to Rebuild Clients

**Follow the steps below to downgrade:**

*Windows:* - If you **do not have** a previous rollback copy of your AhsayCBS installation folder, but you do have the previous AhsayCBS installer *cbs-win.exe*:

1.  Logon with Windows administrator privileges (i.e. administrator).

2.  Stop CBS Service

3.  Make a rollback copy of your current C:\Program Files\AhsayCBS , store it outside of "Program Files" path.

4.  Run previous release version of *cbs-win.exe*

5.  Follow prompts to retain existing configuration

6.  Start CBS Service

7.  Login to CBS Web Management Console, verify version and users exist.

8.  If you are branded, it may be necessary to Rebuild Clients

*Linux/Solaris/FreeBSD:*

If you previously retained a rollback copy of your previous installation prior to upgrade:

1.  Logon as root to the Linux/Solaris/FreeBSD machine.

2.  Stop CBS Service

3.  Rename **/usr/local/cbs** , to **/usr/local/cbs.NEW**

4.  Rename **/usr/local/cbs717050**, to **/usr/local/cbs**

5.  From **/usr/local/cbs717050.NEW**, copy to **/usr/local/cbs** the following:

    *   conf

    *   system

    *   logs

    *   user
        You may omit moving the "*user*" folder, if your User Home path is not a directory inside your CBS installation path.

6.  Start CBS Service

7.  Login to CBS Web Management Console, verify version and users exist.

8.  If you are branded, it may be necessary to Rebuild Clients

---

### Help with downgrade?

If you have a rollback copy, and request Ahsay assistance with the downgrade, then you may contact Ahsay for your Professional Services needs.

---

# 10 Downgrade AhsayOBM / AhsayACB Clients

To downgrade AhsayOBM/AhsayACB clients:

- You must have a copy of the Offline Client Installer (or have downgraded AhsayCBS to earlier release).

- You will need to manually reinstall using the older client version.

---

**NOTE**

- Ahsay Support cannot provide specific Offline Client Installers.
- It is not possible to use AUA to manage the downgrade of AhsayOBM/AhsayACB clients.

---

# 11 Contacting Ahsay

## 11.1  Technical Assistance

To contact Ahsay support representatives for technical assistance, visit the Partner Portal:
https://www.ahsay.com/partners

Also use the Ahsay Wikipedia for resources such as Hardware Compatibility List, Software Compatibility List, and other product information:
https://wiki.ahsay.com/

## 11.2  Documentation

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

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

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

# Appendix

## Appendix A    Supported Language Code

| Language Code | Language |
|---|---|
| ar | Arabic |
| ca | Catalan |
| cs | Czech |
| da | Danish |
| de | German |
| el | Greek Modern |
| en | English |
| es | Spanish |
| eu | Euskara/Basque |
| fr | French |
| iw | Hebrew |
| hu | Hungarian |
| id | Indonesian |
| it | Italian |
| ja | Japanese |
| ko | Korean |
| lt | Lithuanian |
| nl | Dutch |
| no | Norwegian |
| pl | Polish |
| pt_BR | Portuguese (Brazil) |
| pt_PT | Portuguese (Portugal) |
| ro | Russian |
| sl | Slovenian |
| sv | Swedish |
| th | Thai |
| tr | Turkish |
| vi | Vietnamese |
| zh_CN | Chinese (Simplified) |
| zh_TW | Chinese (Traditional) |

# Appendix B     Image Specifications for Branding

Please refer to **Appendix E Image Specifications** of our [AhsayCBS Administrator's Guide](#) for details.

In order to build Branded CBS or Branded Clients, you must have had purchased the [Rebrand Option](#) module, which covers any license under your account.

---

**Build Branded Installers**

Ahsay Professional Services offers various branding services to assist you with your project.

If you do not have a graphics designer, Ahsay can design all the required images and build your custom installer.  [Total Rebranding Service](#)

If you have a graphics designer, but do not have the time to build the branding profile and build the custom installer, our team can assist you with this project. [Build My Branded CBS Installer](#)

---

# Appendix C    Supported Upgrade Paths

Here is an outline list of supported upgrade paths.

- **In-place Upgrade**
  - This is the standard upgrade path outlined earlier in this guide.

- **Migrate to new replacement server (new OS, on-premises, non-cloud)**
  - New OS should be like-for-like (LFL). Example: Windows 2008 to Windows 2019 is acceptable; but not Linux-to-Windows or AhsayUBS-to-Windows.
  - [FAQ: How to migrate AhsayCBS onto a new server? (8023)](#)
  - [FAQ: How to move a backup user to a different AhsayCBS server in the same Redirector setup](#)
  - Verify clients connect, run jobs, and no new issues.
  - Then proceed with in-place upgrade path

- **Migrate to cloud server (new OS, cloud VM)**
  - You will need storage data disks configured and natively accessible by the Operating System
    - Storage will be used by User Home path
      - Example: *E:\UserHome*
      - Example: */mnt/diskvol1/userhome*
    - Not recommend to configure User Home under OS disk volume
  - Proceed with "*Migrate to new replacement server*" path

---

**Help to the Cloud?**

If you require further answers regarding moving your on-premises Ahsay to the cloud, please contact Ahsay Professional Services to assist you with your project.

Questions related to this type of migration cannot be answered by Ahsay Support, as environments varies between customer to customer, there may be numerous complexities to be handled by experienced Services Team.

---

## Appendix D    Help Topics

Version 7

- FAQ: Ahsay Hardware Requirement List (HRL) for version 7.3 or above
- FAQ: Ahsay Software Compatibility List (SCL) for version 7.3 or above
- FAQ: Frequently Asked Questions about Ahsay Cloud Backup Suite 7
- FAQ: How to provision a Pool Key for AhsayCBS backup server?
- FAQ: How to migrate AhsayCBS onto a new server? (5215)
- FAQ: How to start AhsayCBS in debug mode?
- ISSUE: There is not enough space on the disk (insufficient free space on AhsayCBS server)
- ISSUE: Access denied (cannot login to the AhsayCBS console via the host name)
- FAQ: How to move a backup user to a different AhsayCBS server in the same Redirector setup
- FAQ: How to install the latest patch set for AhsayCBS?
- FAQ: How to install the latest patch set for AhsayOBM / AhsayACB?
- FAQ: How to force another Auto Update on AhsayOBM / ACB version 7 clients
- FAQ: Is there any script for silent installation of AhsayOBM/AhsayACB on Windows platform (so that the client application is installed without the end user interaction)?
- FAQ: Frequently Asked Questions on Backup Destination
- FAQ: Where are the backup client application logs stored at?
- FAQ: How to perform an initial backup to a removable hard drive then import the data onto AhsayCBS?
- FAQ: When are the default Ahsay dummy / self-sign certificate acceptable for business?
- FAQ: How to provide a higher level of SSL security for AhsayCBS
- FAQ: Trusted Certificate Authority (CA) Certificates List for version 7.3.0.0 or above

Version 8

- FAQ: Ahsay Hardware Requirement List (HRL) for version 8.1 or above
- FAQ: Ahsay Software Compatibility List (SCL) for version 8.1 or above
- FAQ: How to modify the Java heap size of AhsayCBS?
- FAQ: Where are the backup client application logs stored at?
- FAQ: How to modify the Java heap size setting for Run on Server Office / Microsoft 365 backup job?
- FAQ: Frequently Asked Questions on Backup Destination