



Ahsay Online Backup Restorer v8 User Guide for Linux (GUI)

Ahsay Systems Corporation Limited

12 March 2021

Copyright Notice

© 2021 Ahsay Systems Corporation Limited. All rights reserved.

The use and copying of this product is subject to a license agreement. Any other use is prohibited. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system or translated into any language in any form by any means without prior written consent of Ahsay Systems Corporation Limited. Information in this manual is subject to change without notice and does not represent a commitment on the part of the vendor, Ahsay Systems Corporation Limited does not warrant that this document is error free. If you find any errors in this document, please report to Ahsay Systems Corporation Limited in writing.

This product includes software developed by the Apache Software Foundation (<https://www.apache.org/>).

Trademarks

Ahsay, Ahsay Cloud Backup Suite, Ahsay Online Backup Suite, Ahsay Offsite Backup Server, Ahsay Online Backup Manager, Ahsay A-Click Backup, Ahsay Replication Server, Ahsay BackupBox Firmware, Ahsay Universal Backup System and Ahsay NAS Client Utility, Ahsay Mobile are trademarks of Ahsay Systems Corporation Limited.

Amazon S3 is a registered trademark of Amazon Web Services, Inc., or its affiliates.

Apple and Mac OS X, macOS, and iOS are registered trademarks of Apple Computer, Inc.

Dropbox is a registered trademark of Dropbox Inc.

Google Cloud Storage, Google Drive, Google Authenticator, and Android are registered trademarks of Google Inc.

Wasabi Hot Cloud Storage is a registered trademark of Wasabi Technologies Inc.

Backblaze B2 Cloud Storage is a registered trademark of Backblaze Inc.

MariaDB is a registered trademark of MariaDB Corporation AB.

Lotus, Domino, and Notes are registered trademark of IBM Corporation.

Microsoft Windows, Microsoft Exchange Server, Microsoft SQL Server, Microsoft Hyper-V, Microsoft Azure, OneDrive, OneDrive for Business, Microsoft Authenticator, and Microsoft Office 365 are registered trademarks of Microsoft Corporation.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Oracle 11g, Oracle 12c, Oracle 18c, Oracle 19c, and MySQL are registered trademarks of Oracle Corporation.

Rackspace and OpenStack are registered trademarks of Rackspace US, Inc.

Red Hat, Red Hat Enterprise Linux, the Shadowman logo and JBoss are registered trademarks of Red Hat, Inc. www.redhat.com in the U.S. and other countries.

Linux is a registered trademark of Linus Torvalds in the U.S. and other countries.

Ubuntu is a registered trademark of Canonical Ltd.

ShadowProtect is a registered trademark of StorageCraft Technology Corporation.

VMware ESXi, vCenter, and vSAN are registered trademarks of VMware, Inc.

All other product names are registered trademarks of their respective owners.

Disclaimer

Ahsay Systems Corporation Limited will not have or accept any liability, obligation or responsibility whatsoever for any loss, destruction or damage (including without limitation consequential loss, destruction or damage) however arising from or in respect of any use or misuse of reliance on this document. By reading and following the instructions in this document, you agree to accept unconditionally the terms of this Disclaimer and as they may be revised and/or amended from time to time by Ahsay Systems Corporation Limited without prior notice to you.

Revision History

Date	Descriptions	Type of modification
12 March 2021	Modified System Architecture diagram in Ch. 1.2; Modified features comparison table in Ch. 1.4; Added Requirements in Ch. 3; Added Ch. 4 Limitations; Added login scenarios in Ch. 6	New / Modifications

Table of Contents

1	Overview	1
1.1	What is this software?	1
1.2	System Architecture	1
1.3	Why should I use AhsayOBR to restore backup data?	2
1.4	Features comparison between Client Backup Agent and AhsayOBR	3
2	About This Document	4
2.1	What is the purpose of this document?.....	4
2.2	What should I expect from this document?.....	4
2.3	Who should read this document?	4
2.4	Overview of the Document Content Structure.....	4
3	Prepare for Using AhsayOBR	5
3.1	Hardware Requirements.....	5
3.2	Software Requirements	5
3.3	Encryption Key	5
3.4	Temporary Directory Requirement.....	5
4	Limitations	6
5	Download and Launch AhsayOBR	7
5.1	Method 1 – Using Linux GUI.....	7
5.1.1	Download AhsayOBR	7
5.1.2	Launch AhsayOBR	9
5.2	Method 2 – Using SSH to remotely download and launch for a Linux machine with X11 forwarding	21
5.2.1	Download and Launch AhsayOBR	21
6	Start AhsayOBR	36
6.1	Login to AhsayOBR without 2FA	36
6.2	Login to AhsayOBR with 2FA enabled.....	38
7	Restore File Backup Sets	43
8	Contacting Ahsay	53
8.1	Technical Assistance.....	53
8.2	Documentation	53

1 Overview

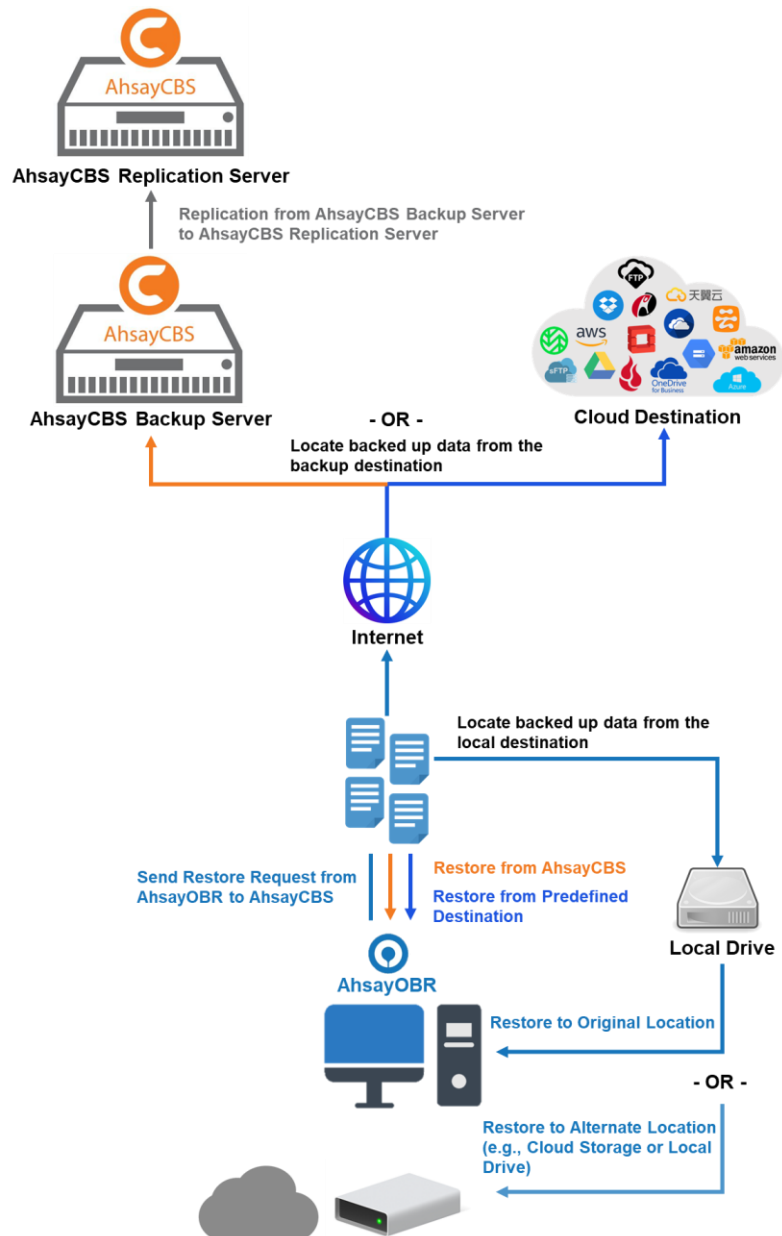
1.1 What is this software?

Ahsay brings you specialized restore software, namely Ahsay Online Backup Restorer (AhsayOBR), to provide a quick and secure solution for restoring your backup data anytime and anywhere. This software is designed specifically as a one-time restorer and is not served for performing backup and configuring any backup user settings. The software supports restoring data that is backed up with AhsayOBM or AhsayACB.

1.2 System Architecture

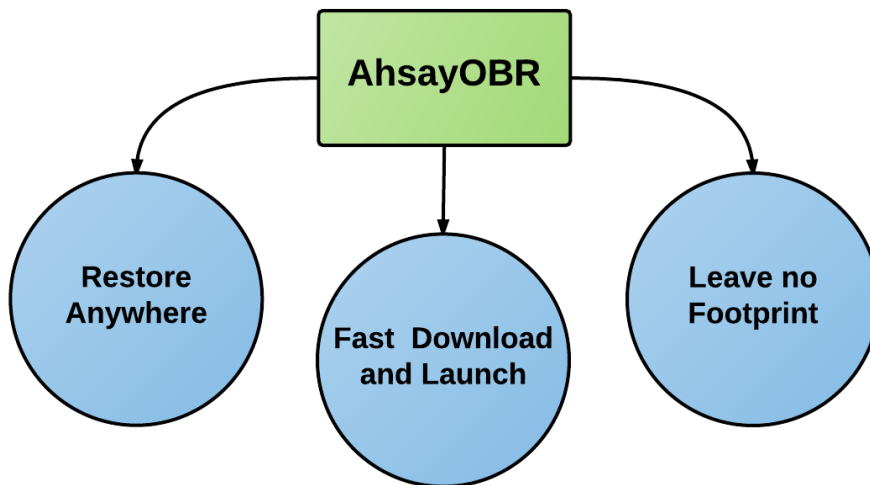
Below is the system architecture diagram illustrating the major elements involved in the process when you are using the AhsayOBR to restore data.

In this user guide, we will focus on information to get you started with using the software, as well as instructions on performing an end-to-end restore process.



***Original location** – the backed up data will be restored on the computer running the AhsayOBR under the same directory path as on the machine storing the backup source. For example, the backup source files are stored in root/Downloads same as on the computer running the AhsayOBR.

1.3 Why should I use AhsayOBR to restore backup data?



Restore Anywhere

There may be times when you wish to restore your backed up data but have no access to the computer with the Client Backup Agent (AhsayOBM/AhsayACB) installed. AhsayOBR is exactly designed to cater to your needs under such circumstances.

You can now download and launch the AhsayOBR anytime and anywhere you like as long as you have a computer with a web browser installed and Internet connection.



Fast Download and Launch

Unlike a Client Backup Agent (AhsayOBM/AhsayACB) which is significantly larger in file size and takes longer time to install on your computer, AhsayOBR is a compact solution that can be downloaded and launched in a short period of time in just a few clicks.

Besides, the AhsayOBR is designed as a one-time restorer that will be removed from your computer completely after it is closed. All the restore log files or settings will also be removed from the computer altogether so you would not need to spend the time on uninstalling the software after you finished the restore.



Leave no Footprint

When you are trying to restore your backed up data remotely, the computer you use for restoring may not have the same level of security settings as the one you normally use for backup and restore onsite. Therefore, it may not be completely secure to install a Client Backup Agent (AhsayOBM/AhsayACB) to restore data because the backup agent will store information such as the backup user's personal info, backup set settings, backup/restore logs, etc. Using a Client Backup Agent for restore under such circumstances may pose potential threat to your personal and confidential information.

That is why the AhsayOBR is designed as a single-purpose restorer with high level of security protection and supporting Two-Factor Authentication (2FA). The restorer takes you right to the restore start point after login, where you can start performing a restore right away. It will also be removed completely after the restore is done, so you do not have to worry about leaving important information behind in the restore logs which could be viewed by a third party.

1.4 Features comparison between Client Backup Agent and AhsayOBR

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

Feature	Tool	Pros	Cons
Installation	AhsayOBR	<ul style="list-style-type: none"> ⦿ No installation required ⦿ Faster to launch 	Required to launch every time you use
	Client Backup Agent	One-time installation	Larger installer size hence longer installation time
Cross platform usage	AhsayOBR	Although both tools are available for use on various platforms, e.g., Windows, Mac, Linux, FreeBSD etc., cross platform restore is NOT recommended. For example, files backed up on Windows are not recommended to restore on a Mac/Linux/FreeBSD machine. Not supported on Synology DSM or QNAP QTS platforms.	
	Client Backup Agent		
Compatibility	AhsayOBR	N/A	Does not support restore of photos and videos backed up using Ahsay Mobile.
	Client Backup Agent	N/A	Support restore of backup set created by the same type of Client Backup Agent only. Example: backup set created on AhsayOBM can only be restored by AhsayOBM.

2 About This Document

2.1 What is the purpose of this document?

This document aims at introducing the AhsayOBR software and its features, providing all necessary information to download and launch the AhsayOBR software and instructions on performing restore.

2.2 What should I expect from this document?

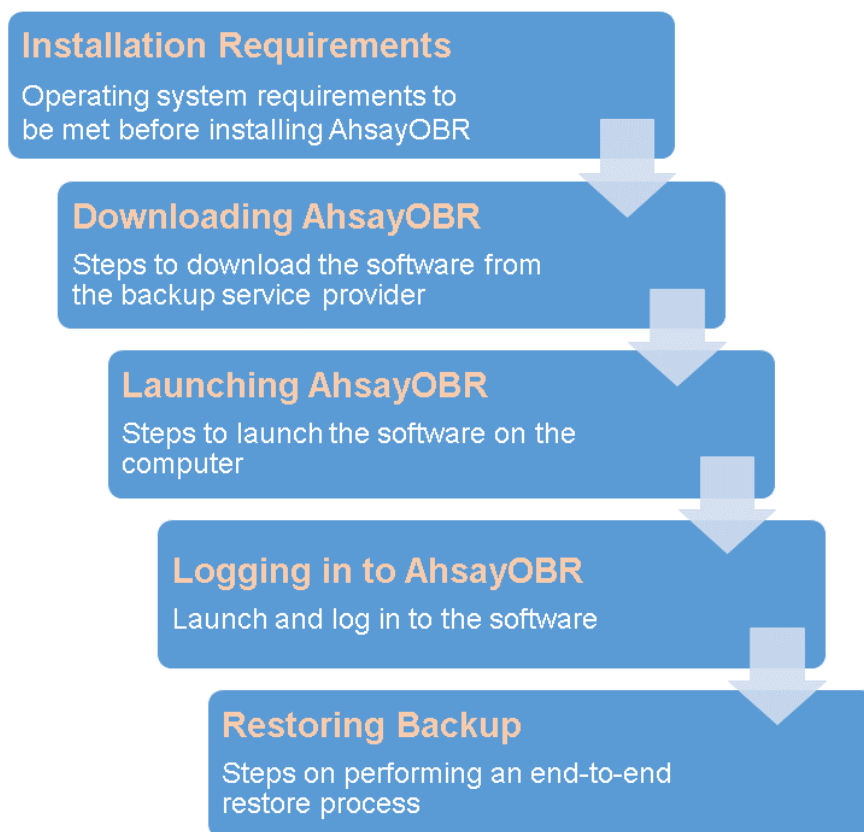
After reading through this documentation, you can expect to have sufficient knowledge to download and launch the AhsayOBR software, as well as to perform a restore

2.3 Who should read this document?

This document is intended for backup users who need to perform restore while having no access to their Client Backup Agent (AhsayOBM/AhsayACB) or for those who need to quickly recover file(s) on another machine or device with minimal effort.

2.4 Overview of the Document Content Structure

Below is a flow chart illustrating the major chapters this document will cover in sequence.



3 Prepare for Using AhsayOBR

3.1 Hardware Requirements

You can launch the AhsayOBR on a physical machine or on a virtual machine. The hardware requirements for launching AhsayOBR is the same as installing AhsayOBM.

Refer to the link below for details of the minimum and recommended hardware requirements:
[FAQ: Ahsay Hardware Requirement List \(HRL\) for version 8.1 or above](#)

3.2 Software Requirements

Make sure that Linux is installed with GUI desktop environment, i.e., GNOME, KDE, Cinnamon, etc.

- **OpenJDK Version 1.8** <https://www.freebsd.org/java/>
The installed Java Development Kit must at least be version 8.
- **GNU LIBC 2.14** <https://www.gnu.org/software/libc/>
The installed 'GNU LIBC' must at least be version 2.14 for OpenJDK 8 to work.
- **tar** <https://www.gnu.org/software/tar>
The 'tar' command is used to uncompress or extract installation files or components of AhsayOBR for both online and offline installations.

Refer to the link below to see the list of the system requirements for software compatibility:
[FAQ: Ahsay Software Compatibility List \(SCL\) for version 8.1 or above](#)

3.3 Encryption Key

If the backup set(s) are enabled with an encryption key, then the encryption key for the backup set(s) is required.

3.4 Temporary Directory Requirement

The temporary directory folder should have at least the same available size as the compressed or image file to be restored and should be located on a local drive to ensure optimal performance.

4 Limitations

1. AhsayOBR is not supported on Synology DSM or QNAP QTS platforms.
2. AhsayOBR does not support restore of photos and videos backed up using Ahsay Mobile.

5 Download and Launch AhsayOBR

There are two ways to download and launch the AhsayOBR on your Linux machine. You can either use the Linux GUI directly on the machine itself **OR** remotely access the Linux machine via SSH client with X11 forwarding.

There are two installation modes of AhsayOBR, online installation and offline installation. Below is the table of comparison between online installation and offline installation.

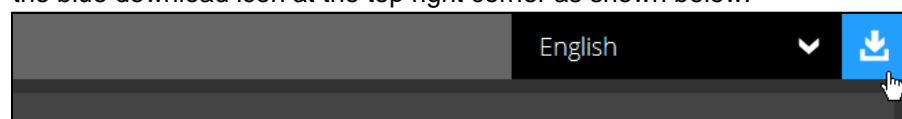
	Online Installation	Offline Installation
Installation Time	<ul style="list-style-type: none">➤ Takes more time as it needs to download the binary and component files (150MB to 272MB depending on operating system) each time the installation is run.➤ Online installer size is 9KB to 2MB depending on operating system as it contains only the initial installation package files.	<ul style="list-style-type: none">➤ Takes less time as all the necessary binary and component files are already available in the offline installer, and offline installer can be downloaded once but can be reused many times.➤ Offline installer size is 150MB to 272MB depending on operating system as it contains all the necessary binary and component files.
Deployments	<ul style="list-style-type: none">➤ Suitable for sites with fast and stable internet connection as internet connection is needed each time when an installation is run.➤ A slow internet connection will result in longer installation time and interrupted, or unstable internet connection may lead to unsuccessful installation.➤ Ensures the latest version of the product is installed.	<ul style="list-style-type: none">➤ Suitable for client sites with metered internet connections as once the offline installer is downloaded, internet connection is not needed each time when an installation is run.➤ May not be the latest version.

5.1 Method 1 – Using Linux GUI

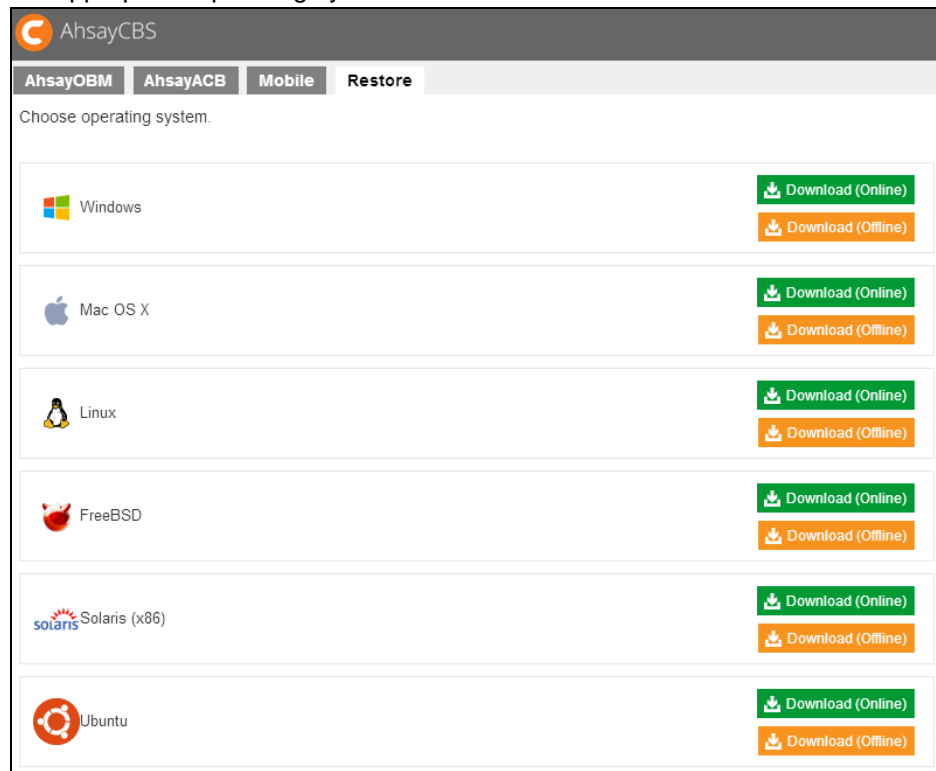
This section aims at providing instructions on downloading and launching AhsayOBR using the Linux GUI directly on the machine.

5.1.1 Download AhsayOBR

1. Download the AhsayOBR from your backup service provider's website. Click the blue download icon at the top right corner as shown below.



- In the **Restore** tab of the download page, choose the AhsayOBR installer for the appropriate operating system.



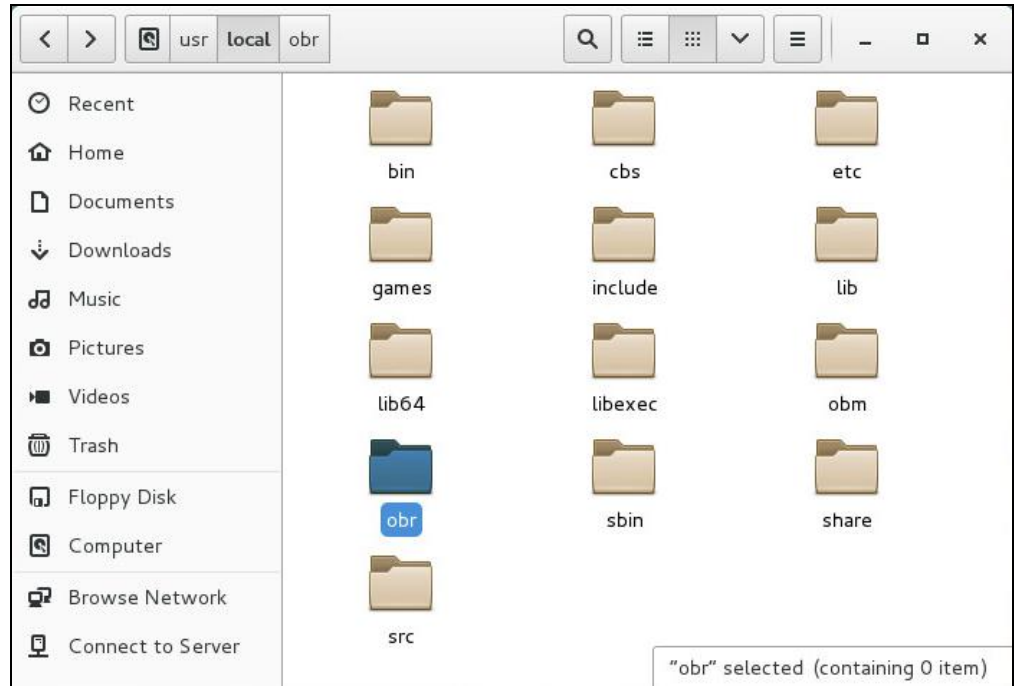
- In the **Linux** section, click on the **Download (Online)** or **Download (Offline)** button to download the AhsayOBR installation package.



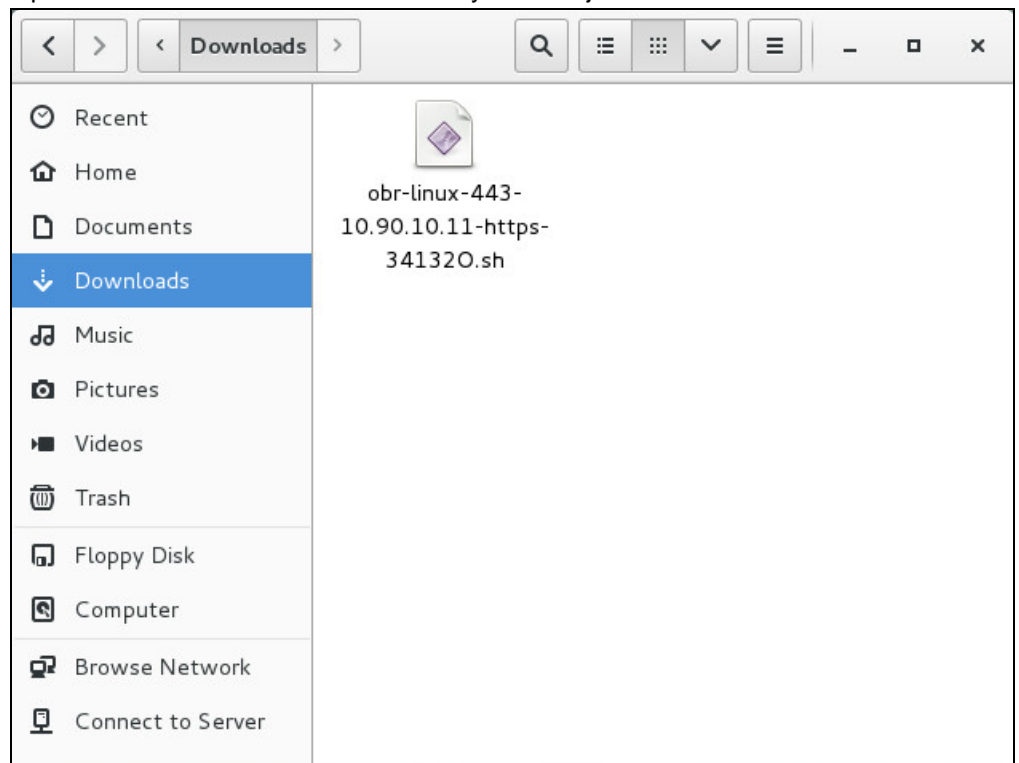
5.1.2 Launch AhsayOBR

Option 1: Online Installation

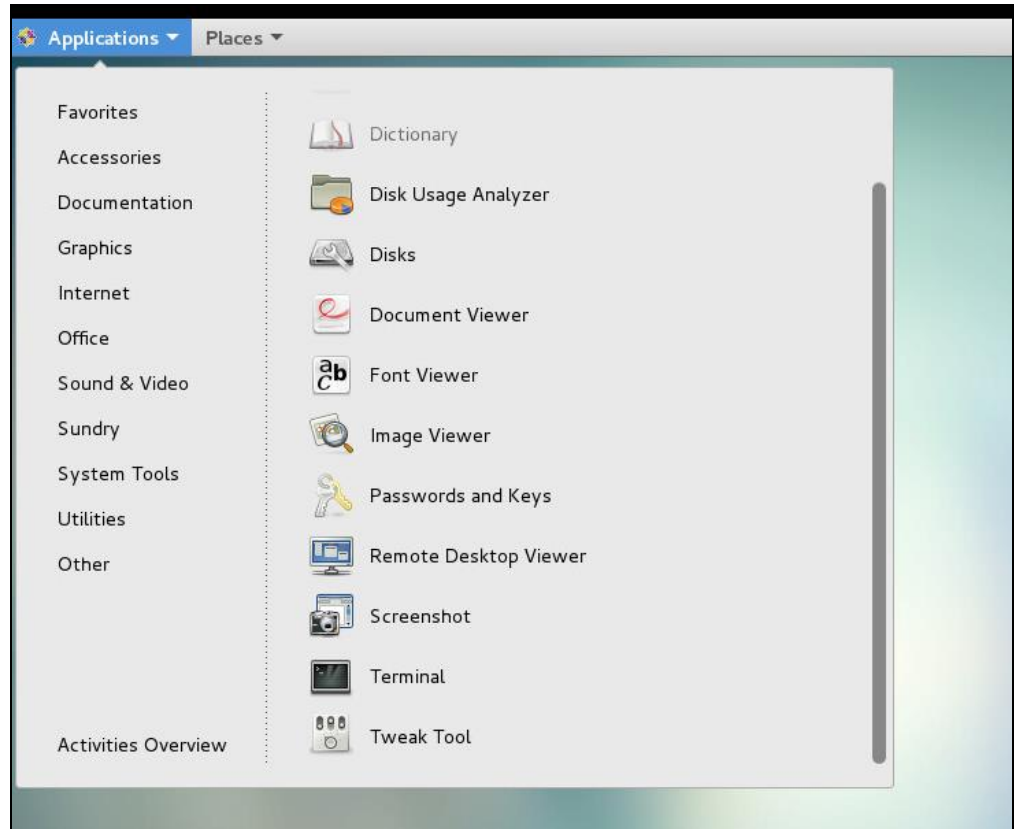
1. Create a folder under the **/usr/local** directory. You could name the folder **obr**.



2. Open the folder and then move the file you have just downloaded into it.



- Click **Applications** at the top menu bar, then select **Utilities>Terminal**.



- Use the command highlighted in red to enter the **usr/local/obr** folder.

```
[root@[machine's name]~]# cd /usr/local/obr
```

- Use the command highlighted in red to execute the launcher.

```
[root@[machine's name] obr]# sh [name of the file you downloaded]
```

- The following scripts show while the launcher is being downloaded.

```
Host address: https://10.90.10.11:443
Downloading file... jre-std-linux-amd64.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time      Current
                                Dload  Upload  Total
Spent    Left  Speed
100 91.3M  100 91.3M    0     0  3849k      0  0:00:24
0:00:24 --:--:-- 7860k
Download file completed
Untar component file to /tmp/_obm.190109173535/jvm
Downloading file... app-common.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time      Current
                                Dload  Upload  Total
Spent    Left  Speed
100 34.9M  100 34.9M    0     0  1552k      0  0:00:23
0:00:23 --:--:-- 3279k
Download file completed
Untar component file to /tmp/_obm.190109173535
Downloading file... app-native-nix-x64.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time      Current
```

```

                                Dload  Upload  Total
Spent   Left  Speed
100 527k 100 527k   0    0 1808k    0 ---:---:-- ---:--
:-- --:---:-- 1806k
Download file completed
Untar component file to /tmp/_obm.190109173535
Downloading file... app-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time       Time   Current
                                Dload  Upload  Total
Spent   Left  Speed
100 12068 100 12068   0    0 71283    0 ---:---:-- ---:--
:-- --:---:-- 71833
Download file completed
Untar component file to /tmp/_obm.190109173535
Downloading file... aua-common.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time       Time   Current
                                Dload  Upload  Total
Spent   Left  Speed
100 10.9M 100 10.9M   0    0 12.7M    0 ---:---:-- ---:--
:-- --:---:-- 12.7M
Download file completed
Untar component file to /tmp/_obm.190109173535
Downloading file... aua-native-nix-x64.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time       Time   Current
                                Dload  Upload  Total
Spent   Left  Speed
100 440k 100 440k   0    0 1712k    0 ---:---:-- ---:--
:-- --:---:-- 1720k
Download file completed
Untar component file to /tmp/_obm.190109173535
Downloading file... aua-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time       Time   Current
                                Dload  Upload  Total
Spent   Left  Speed
100 1021 100 1021   0    0 6906    0 ---:---:-- ---:--
:-- --:---:-- 6945
Download file completed
Untar component file to /tmp/_obm.190109173535
Downloading file... util-common.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time       Time   Current
                                Dload  Upload  Total
Spent   Left  Speed
100 4829 100 4829   0    0 26658    0 ---:---:-- ---:--
:-- --:---:-- 26827
Download file completed
Untar component file to /tmp/_obm.190109173535
Downloading file... util-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time       Time   Current
                                Dload  Upload  Total
Spent   Left  Speed
100 85206 100 85206   0    0 455k    0 ---:---:-- ---:--
:-- --:---:-- 457k
Download file completed
Untar component file to /tmp/_obm.190109173535
Downloading file... properties-common.tar.gz

```

% Total Time	% Received Time	% Xferd Current	Average Speed Dload Upload	Time Total
Spent	Left	Speed		
100	3583k	0 3583k	0 0 403k 0	--:--:--
0:00:08	--:--:--	958k		
Download file completed				
Untar component file to /tmp/_obm.190109173535				
tar: bin/cbCoreRes_ar.properties: time stamp 2019-01-09				
17:42:39 is 358.598240813 s in the future				
tar: bin/cbCoreRes_bg.properties: time stamp 2019-01-09				
17:42:39 is 358.596424752 s in the future				
tar: bin/cbCoreRes_ca.properties: time stamp 2019-01-09				
17:42:39 is 358.594754009 s in the future				
tar: bin/cbCoreRes_cs.properties: time stamp 2019-01-09				
17:42:39 is 358.592567467 s in the future				
tar: bin/cbCoreRes_da.properties: time stamp 2019-01-09				
17:42:39 is 358.590424453 s in the future				
tar: bin/cbCoreRes_de.properties: time stamp 2019-01-09				
17:42:39 is 358.588998406 s in the future				
tar: bin/cbCoreRes_el.properties: time stamp 2019-01-09				
17:42:40 is 359.585480327 s in the future				
tar: bin/cbCoreRes_en.properties: time stamp 2019-01-09				
17:42:40 is 359.584446665 s in the future				
tar: bin/cbCoreRes_es.properties: time stamp 2019-01-09				
17:42:40 is 359.583117768 s in the future				
tar: bin/cbCoreRes_eu.properties: time stamp 2019-01-09				
17:42:40 is 359.581818929 s in the future				
tar: bin/cbCoreRes_fr.properties: time stamp 2019-01-09				
17:42:40 is 359.580140783 s in the future				
tar: bin/cbCoreRes_fr.properties: time stamp 2019-01-09				
17:42:40 is 359.578730534 s in the future				
tar: bin/cbCoreRes_hu.properties: time stamp 2019-01-09				
17:42:40 is 359.576545007 s in the future				
tar: bin/cbCoreRes_in.properties: time stamp 2019-01-09				
17:42:40 is 359.575528549 s in the future				
tar: bin/cbCoreRes_is.properties: time stamp 2019-01-09				
17:42:40 is 359.574021941 s in the future				
tar: bin/cbCoreRes_it.properties: time stamp 2019-01-09				
17:42:40 is 359.572615541 s in the future				
tar: bin/cbCoreRes_iw.properties: time stamp 2019-01-09				
17:42:40 is 359.569276668 s in the future				
tar: bin/cbCoreRes_ja.properties: time stamp 2019-01-09				
17:42:40 is 359.566904866 s in the future				
tar: bin/cbCoreRes_ko.properties: time stamp 2019-01-09				
17:42:40 is 359.565024151 s in the future				
tar: bin/cbCoreRes_lt.properties: time stamp 2019-01-09				
17:42:40 is 359.563199412 s in the future				
tar: bin/cbCoreRes_nl.properties: time stamp 2019-01-09				
17:42:40 is 359.561811264 s in the future				
tar: bin/cbCoreRes_no.properties: time stamp 2019-01-09				
17:42:40 is 359.560377609 s in the future				
tar: bin/cbCoreRes_pl.properties: time stamp 2019-01-09				
17:42:40 is 359.558533817 s in the future				
tar: bin/cbCoreRes_pt_BR.properties: time stamp 2019-01-09				
17:42:41 is 360.555909406 s in the future				
tar: bin/cbCoreRes_pt_PT.properties: time stamp 2019-01-09				
17:42:41 is 360.554398158 s in the future				
tar: bin/cbCoreRes_ro.properties: time stamp 2019-01-09				
17:42:41 is 360.553126817 s in the future				
tar: bin/cbCoreRes_ru.properties: time stamp 2019-01-09				

17:42:41 is 360.549395328 s in the future
tar: bin/cbCoreRes_sl.properties: time stamp 2019-01-09
17:42:41 is 360.548078249 s in the future
tar: bin/cbCoreRes_sv.properties: time stamp 2019-01-09
17:42:41 is 360.546853684 s in the future
tar: bin/cbCoreRes_th_TH.properties: time stamp 2019-01-09
17:42:41 is 360.543930799 s in the future
tar: bin/cbCoreRes_tr.properties: time stamp 2019-01-09
17:42:41 is 360.542265253 s in the future
tar: bin/cbCoreRes_uk.properties: time stamp 2019-01-09
17:42:41 is 360.541178512 s in the future
tar: bin/cbCoreRes_vi.properties: time stamp 2019-01-09
17:42:41 is 360.53951657 s in the future
tar: bin/cbCoreRes_zh_CN.properties: time stamp 2019-01-09
17:42:41 is 360.538023459 s in the future
tar: bin/cbCoreRes_zh_TW.properties: time stamp 2019-01-09
17:42:41 is 360.536403669 s in the future
tar: bin/cbUIRes_ar.properties: time stamp 2019-01-09
17:42:41 is 360.534535073 s in the future
tar: bin/cbUIRes_bg.properties: time stamp 2019-01-09
17:42:41 is 360.533500369 s in the future
tar: bin/cbUIRes_ca.properties: time stamp 2019-01-09
17:42:42 is 361.532461356 s in the future
tar: bin/cbUIRes_cs.properties: time stamp 2019-01-09
17:42:42 is 361.531406663 s in the future
tar: bin/cbUIRes_da.properties: time stamp 2019-01-09
17:42:42 is 361.530314089 s in the future
tar: bin/cbUIRes_de.properties: time stamp 2019-01-09
17:42:42 is 361.529215678 s in the future
tar: bin/cbUIRes_el.properties: time stamp 2019-01-09
17:42:42 is 361.526784698 s in the future
tar: bin/cbUIRes_en.properties: time stamp 2019-01-09
17:42:42 is 361.525680165 s in the future
tar: bin/cbUIRes_es.properties: time stamp 2019-01-09
17:42:42 is 361.5249276 s in the future
tar: bin/cbUIRes_eu.properties: time stamp 2019-01-09
17:42:42 is 361.523847349 s in the future
tar: bin/cbUIRes_fi.properties: time stamp 2019-01-09
17:42:42 is 361.52272463 s in the future
tar: bin/cbUIRes_fr.properties: time stamp 2019-01-09
17:42:42 is 361.521646742 s in the future
tar: bin/cbUIRes_hu.properties: time stamp 2019-01-09
17:42:42 is 361.520302418 s in the future
tar: bin/cbUIRes_in.properties: time stamp 2019-01-09
17:42:42 is 361.519535909 s in the future
tar: bin/cbUIRes_is.properties: time stamp 2019-01-09
17:42:42 is 361.518398962 s in the future
tar: bin/cbUIRes_it.properties: time stamp 2019-01-09
17:42:42 is 361.517670697 s in the future
tar: bin/cbUIRes_iw.properties: time stamp 2019-01-09
17:42:42 is 361.514752017 s in the future
tar: bin/cbUIRes_ja.properties: time stamp 2019-01-09
17:42:42 is 361.512710622 s in the future
tar: bin/cbUIRes_ko.properties: time stamp 2019-01-09
17:42:42 is 361.511128047 s in the future
tar: bin/cbUIRes_lt.properties: time stamp 2019-01-09
17:42:43 is 362.510003293 s in the future
tar: bin/cbUIRes_nl.properties: time stamp 2019-01-09
17:42:43 is 362.509235761 s in the future
tar: bin/cbUIRes_no.properties: time stamp 2019-01-09
17:42:43 is 362.508022817 s in the future

tar: bin/cbUIRes_pl.properties: time stamp 2019-01-09
17:42:43 is 362.506851539 s in the future
tar: bin/cbUIRes_pt_BR.properties: time stamp 2019-01-09
17:42:43 is 362.505796059 s in the future
tar: bin/cbUIRes_pt_PT.properties: time stamp 2019-01-09
17:42:43 is 362.504694509 s in the future
tar: bin/cbUIRes_ro.properties: time stamp 2019-01-09
17:42:43 is 362.503764658 s in the future
tar: bin/cbUIRes_ru.properties: time stamp 2019-01-09
17:42:43 is 362.501393423 s in the future
tar: bin/cbUIRes_sl.properties: time stamp 2019-01-09
17:42:43 is 362.50032258 s in the future
tar: bin/cbUIRes_sv.properties: time stamp 2019-01-09
17:42:43 is 362.49958685 s in the future
tar: bin/cbUIRes_th_TH.properties: time stamp 2019-01-09
17:42:43 is 362.497392194 s in the future
tar: bin/cbUIRes_tr.properties: time stamp 2019-01-09
17:42:43 is 362.496238999 s in the future
tar: bin/cbUIRes_uk.properties: time stamp 2019-01-09
17:42:43 is 362.495098537 s in the future
tar: bin/cbUIRes_vi.properties: time stamp 2019-01-09
17:42:43 is 362.493828154 s in the future
tar: bin/cbUIRes_zh_CN.properties: time stamp 2019-01-09
17:42:43 is 362.492849495 s in the future
tar: bin/cbUIRes_zh_TW.properties: time stamp 2019-01-09
17:42:43 is 362.491641799 s in the future
tar: bin/obxRes_ar.properties: time stamp 2019-01-09
17:42:43 is 362.489021674 s in the future
tar: bin/obxRes_bg.properties: time stamp 2019-01-09
17:42:43 is 362.487151014 s in the future
tar: bin/obxRes_ca.properties: time stamp 2019-01-09
17:42:44 is 363.485869796 s in the future
tar: bin/obxRes_cs.properties: time stamp 2019-01-09
17:42:44 is 363.484352118 s in the future
tar: bin/obxRes_da.properties: time stamp 2019-01-09
17:42:44 is 363.482998145 s in the future
tar: bin/obxRes_de.properties: time stamp 2019-01-09
17:42:44 is 363.481394325 s in the future
tar: bin/obxRes_el.properties: time stamp 2019-01-09
17:42:44 is 363.477033277 s in the future
tar: bin/obxRes_en.properties: time stamp 2019-01-09
17:42:44 is 363.475742797 s in the future
tar: bin/obxRes_es.properties: time stamp 2019-01-09
17:42:44 is 363.474252209 s in the future
tar: bin/obxRes_eu.properties: time stamp 2019-01-09
17:42:44 is 363.472836967 s in the future
tar: bin/obxRes_fi.properties: time stamp 2019-01-09
17:42:44 is 363.47150916 s in the future
tar: bin/obxRes_fr.properties: time stamp 2019-01-09
17:42:44 is 363.469953112 s in the future
tar: bin/obxRes_hu.properties: time stamp 2019-01-09
17:42:44 is 363.468427951 s in the future
tar: bin/obxRes_in.properties: time stamp 2019-01-09
17:42:44 is 363.467076463 s in the future
tar: bin/obxRes_is.properties: time stamp 2019-01-09
17:42:44 is 363.465751325 s in the future
tar: bin/obxRes_it.properties: time stamp 2019-01-09
17:42:44 is 363.464380043 s in the future
tar: bin/obxRes_iw.properties: time stamp 2019-01-09
17:42:44 is 363.462159867 s in the future
tar: bin/obxRes_ja.properties: time stamp 2019-01-09

```

17:42:44 is 363.459996559 s in the future
tar: bin/obxRes_ko.properties: time stamp 2019-01-09
17:42:45 is 364.458257108 s in the future
tar: bin/obxRes_lt.properties: time stamp 2019-01-09
17:42:45 is 364.456710062 s in the future
tar: bin/obxRes_nl.properties: time stamp 2019-01-09
17:42:45 is 364.454474631 s in the future
tar: bin/obxRes_no.properties: time stamp 2019-01-09
17:42:45 is 364.453375353 s in the future
tar: bin/obxRes_pl.properties: time stamp 2019-01-09
17:42:45 is 364.451404338 s in the future
tar: bin/obxRes_pt_BR.properties: time stamp 2019-01-09
17:42:45 is 364.450014883 s in the future
tar: bin/obxRes_pt_PT.properties: time stamp 2019-01-09
17:42:45 is 364.448268055 s in the future
tar: bin/obxRes_ro.properties: time stamp 2019-01-09
17:42:45 is 364.447238648 s in the future
tar: bin/obxRes_ru.properties: time stamp 2019-01-09
17:42:45 is 364.443575332 s in the future
tar: bin/obxRes_sl.properties: time stamp 2019-01-09
17:42:45 is 364.441639924 s in the future
tar: bin/obxRes_sv.properties: time stamp 2019-01-09
17:42:45 is 364.440304617 s in the future
tar: bin/obxRes_th_TH.properties: time stamp 2019-01-09
17:42:45 is 364.43707465 s in the future
tar: bin/obxRes_tr.properties: time stamp 2019-01-09
17:42:45 is 364.435825477 s in the future
tar: bin/obxRes_uk.properties: time stamp 2019-01-09
17:42:45 is 364.434420749 s in the future
tar: bin/obxRes_vi.properties: time stamp 2019-01-09
17:42:45 is 364.43255459 s in the future
tar: bin/obxRes_zh_CN.properties: time stamp 2019-01-09
17:42:45 is 364.430766106 s in the future
tar: bin/obxRes_zh_TW.properties: time stamp 2019-01-09
17:42:46 is 365.429447168 s in the future
Downloading file... app-inst-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time      Current
                                Dload  Upload  Total
Spent    Left  Speed
100 172k 100 172k    0    0  750k      0  --:--:--  --:--
:-- --:--:--  754k
Download file completed
Untar component file to /tmp/_obm.190109173535
Downloading file... aua-inst-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time      Current
                                Dload  Upload  Total
Spent    Left  Speed
100 54564 100 54564    0    0  278k      0  --:--:--  --:--
:-- --:--:--  278k
Download file completed
Untar component file to /tmp/_obm.190109173535
Configure Application Path: /usr/local/obr/RestoreWizard
Log Time: Wed Jan  9 17:36:41 HKT 2019

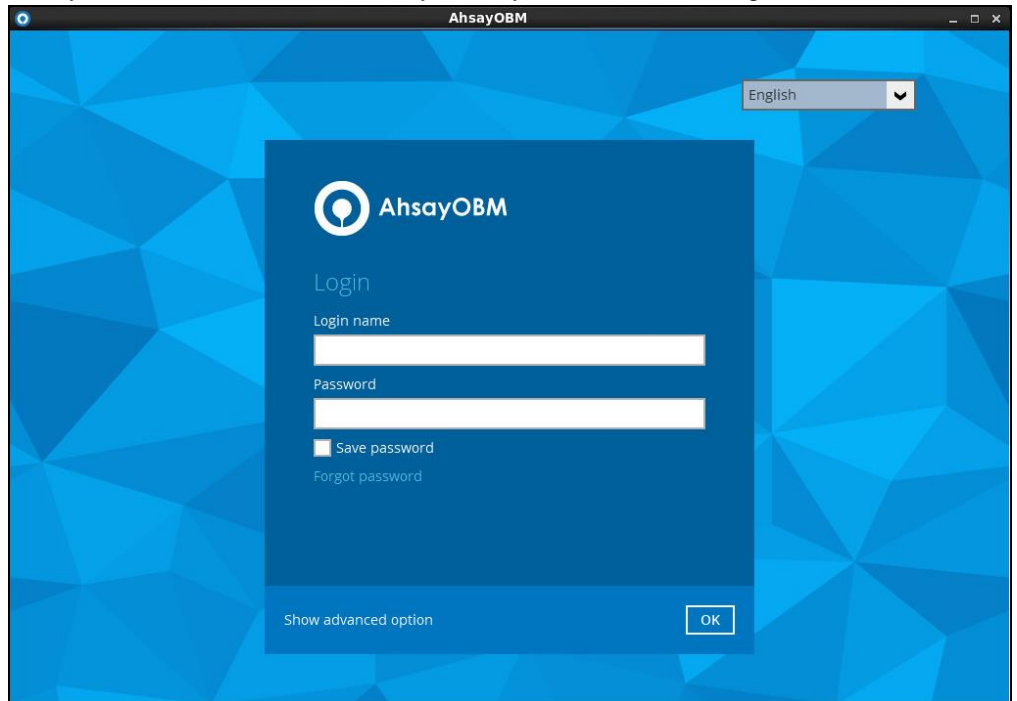
Verifying current user privilege ...
Current user has enough privilege to "config".

Start configuration on Generic Linux Platform (Linux)

```

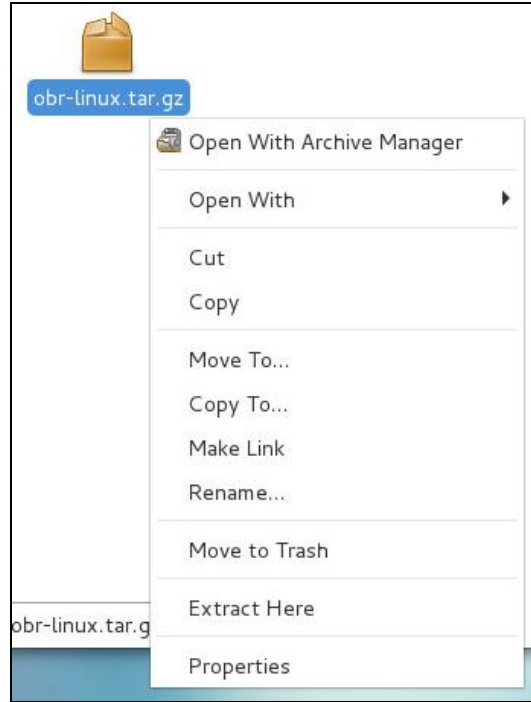
```
Installation Path: /usr/local/obr/RestoreWizard
Minimum supported JVM version: 1.7
Maximum supported JVM version: 1.8
Current JVM version is supported for installation.
Create Backup Manager JVM, Path:
/usr/local/obr/RestoreWizard/jvm/bin/bJW
Create Scheduler Service JVM, Path:
/usr/local/obr/RestoreWizard/jvm/bin/bschJW
Setup File Permissions
localuser:root being added to access control list
Startup Ahsay Online Backup Manager ...
Done
```

7. AhsayOBR is launched successfully when you see the following screen.

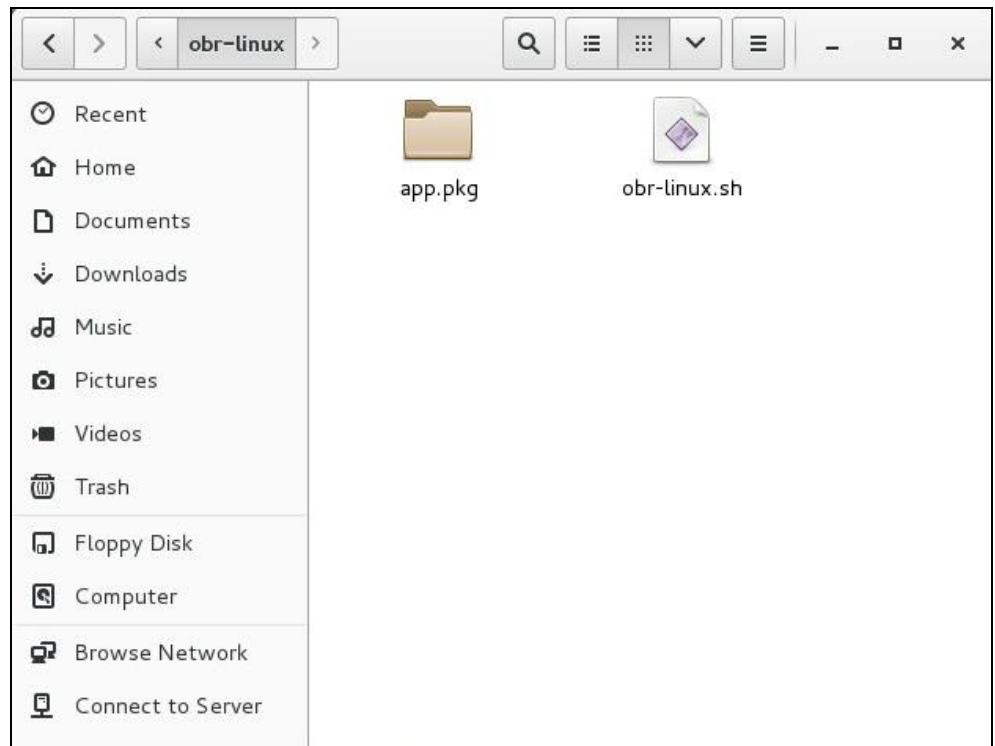
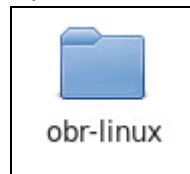


Option 2: Offline Installation

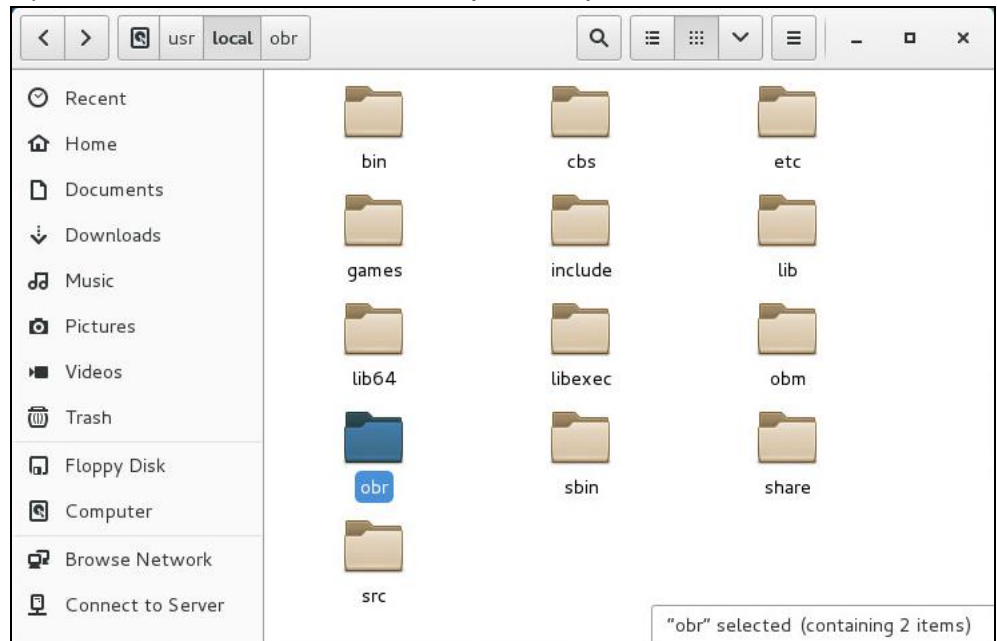
1. Right click on the AhsayOBR installation package .gz file to extract.



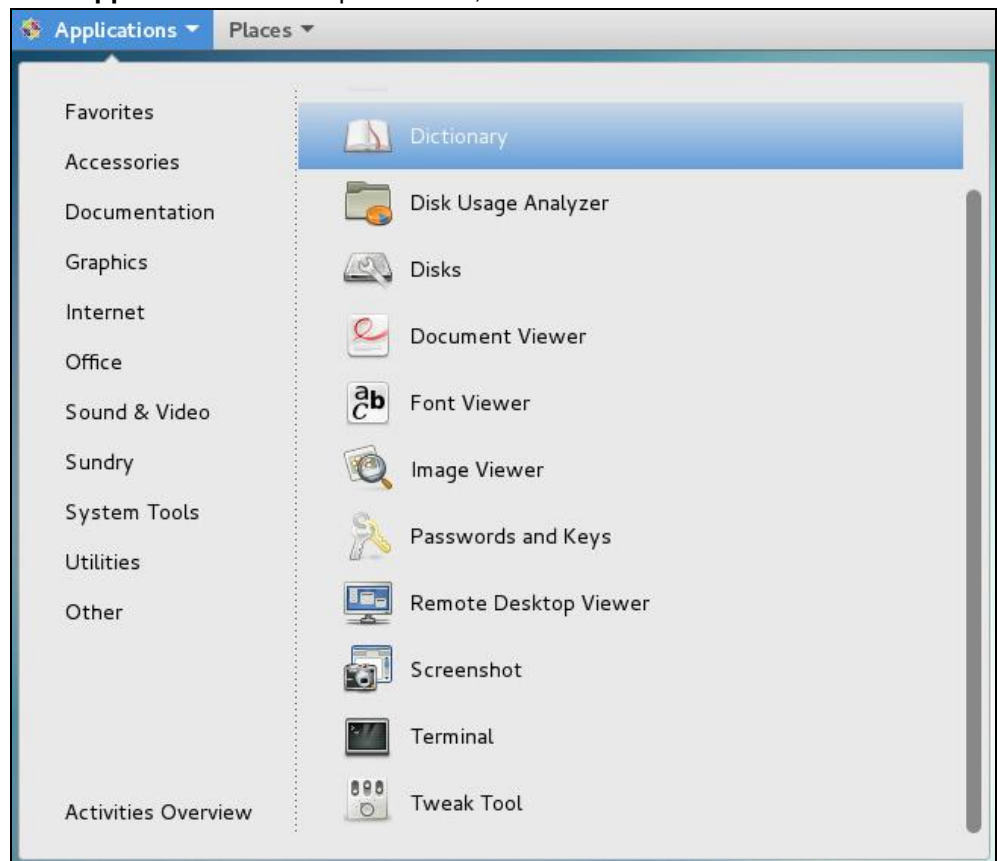
2. Open the folder to check the extracted installation package.



3. Create a folder under the **/usr/local** directory. You could name the folder **obr**. Open the folder and then move the file you have just extracted into it.



4. Click **Applications** at the top menu bar, then select **Utilities>Terminal**.



5. Use the command highlighted in **red** to enter the **/usr/local/obr** folder.

```
[root@[machine's name]~]# cd /usr/local/obr
```

6. Use the command highlighted in **red** to execute the launcher.

```
[root@[machine's name] obr]# sh [name of the file you extracted]
```

7. The following scripts show while the launcher is being launched. The installation is completed when "Done" is displayed at the end of the script.

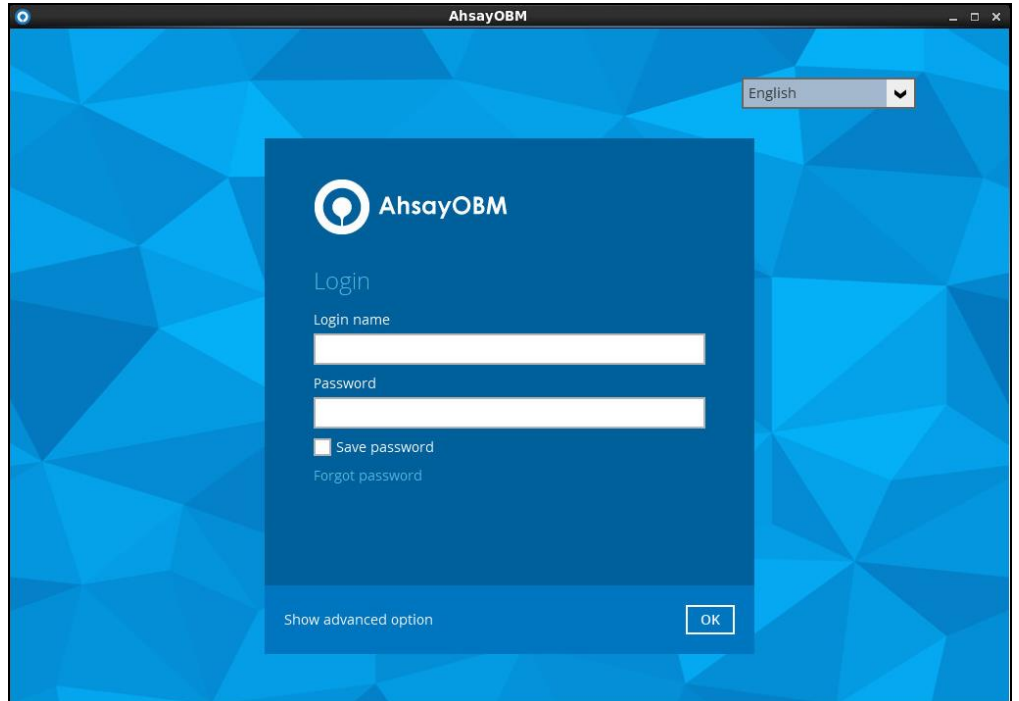
```
Log Time: Wed Jan 9 17:18:55 HKT 2019
Using package in /usr/local/obr/app.pkg
Package version: 8.0.5.0
Untar jre-std-linux-amd64.tar.gz to
/tmp/_obm.190109171855/jvm
Untar app-common.tar.gz to /tmp/_obm.190109171855
Untar app-native-nix-x64.tar.gz to
/tmp/_obm.190109171855
Untar app-nix-obm.tar.gz to /tmp/_obm.190109171855
Untar aua-common.tar.gz to /tmp/_obm.190109171855
Untar aua-native-nix-x64.tar.gz to
/tmp/_obm.190109171855
Untar aua-nix-obm.tar.gz to /tmp/_obm.190109171855
Untar util-common.tar.gz to /tmp/_obm.190109171855
Untar util-nix-obm.tar.gz to /tmp/_obm.190109171855
Untar properties-common.tar.gz to /tmp/_obm.190109171855
Untar app-inst-nix-obm.tar.gz to /tmp/_obm.190109171855
Untar aua-inst-nix-obm.tar.gz to /tmp/_obm.190109171855
Configure Application Path: /usr/local/obr/RestoreWizard
Log Time: Wed Jan 9 17:19:06 HKT 2019

Verifying current user privilege ...
Current user has enough privilege to "config".

Start configuration on Generic Linux Platform (Linux)

Installation Path: /usr/local/obr/RestoreWizard
Minimum supported JVM version: 1.7
Maximum supported JVM version: 1.8
Current JVM version is supported for installation.
Create Backup Manager JVM, Path:
/usr/local/obr/RestoreWizard/jvm/bin/bJW
Create Scheduler Service JVM, Path:
/usr/local/obr/RestoreWizard/jvm/bin/bschJW
Setup File Permissions
localuser:root being added to access control list
Startup Ahsay Online Backup Manager ...
Done
```

8. AhsayOBR is launched successfully when you see the following screen.



5.2 Method 2 – Using SSH to remotely download and launch for a Linux machine with X11 forwarding

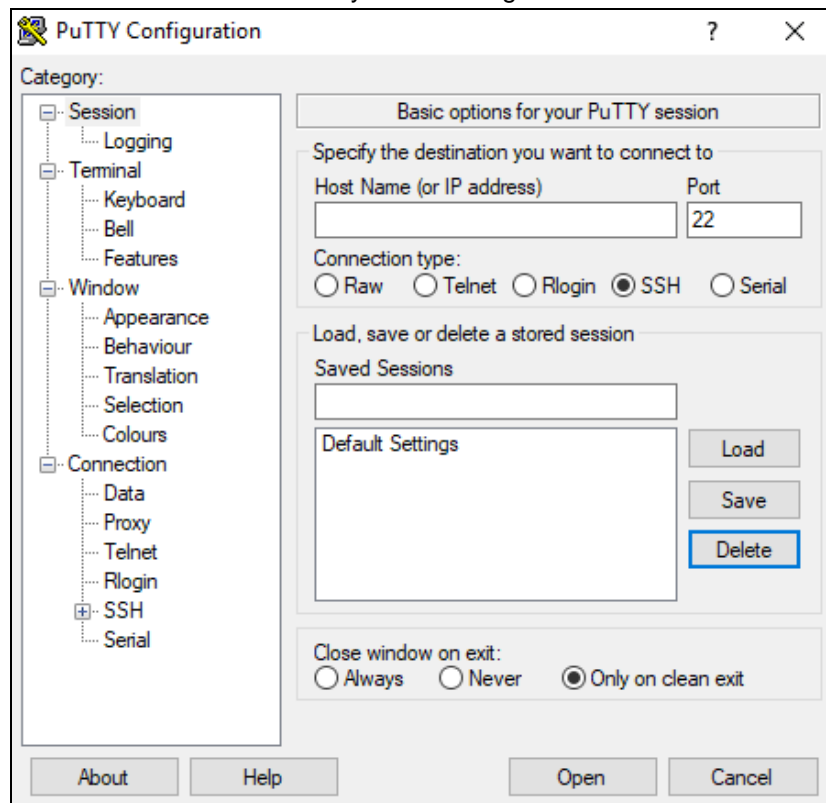
This section aims at providing instructions on using an SSH client to remotely log in to the Linux machine on which you wish to download and launch the AhsayOBR. After completing the download and launch, with the use of X Windows System, a projection of the Linux UI image is made possible, where you can follow the on-screen instructions on the AhsayOBR interface to perform a restore remotely.

5.2.1 Download and Launch AhsayOBR

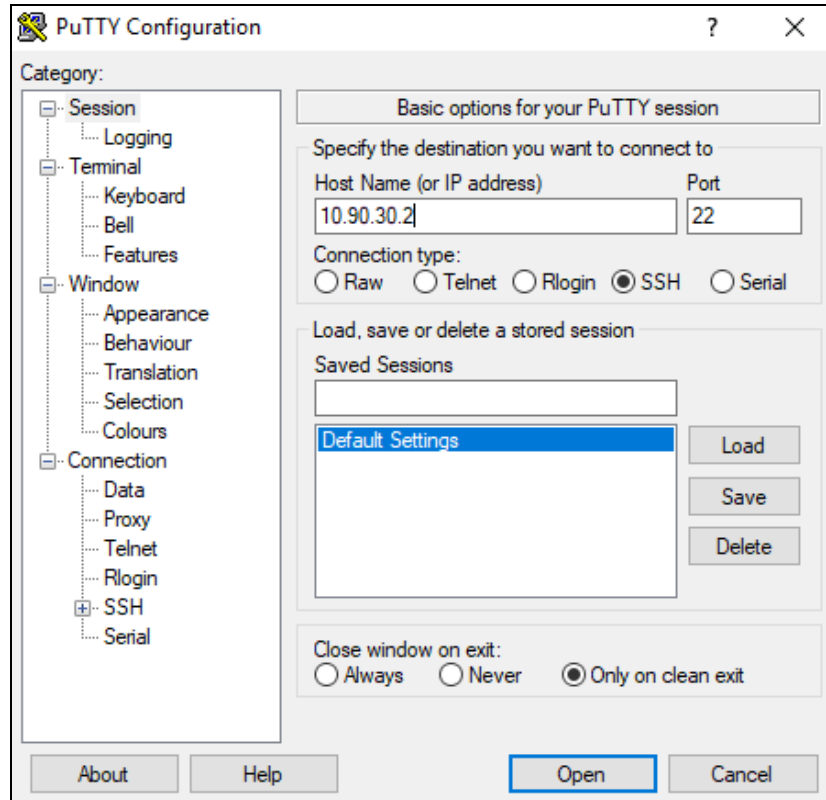
Option 1: Online Installation

1. Before logging in to the Linux machine using a ssh client, please make sure that you have the X Windows System installed on the machine, which is used to project the Linux UI image on your Windows. Otherwise, you may refer to the following link to download the application.
<https://sourceforge.net/projects/xming/>

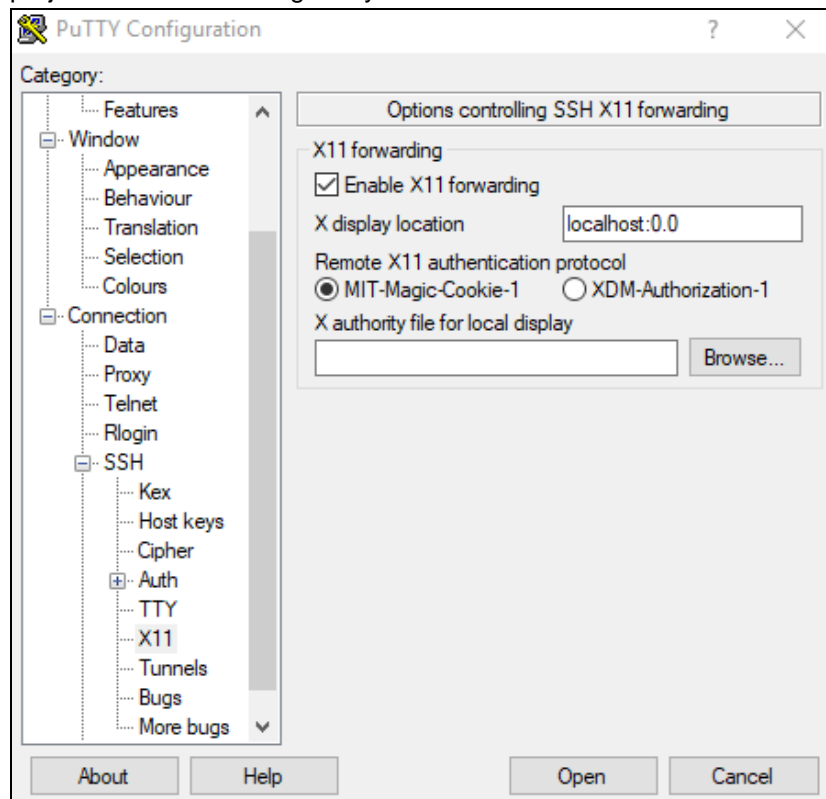
2. Launch the SSH client that you are using to connect to the Linux machine.



3. Enter the host name and port of the Linux machine.

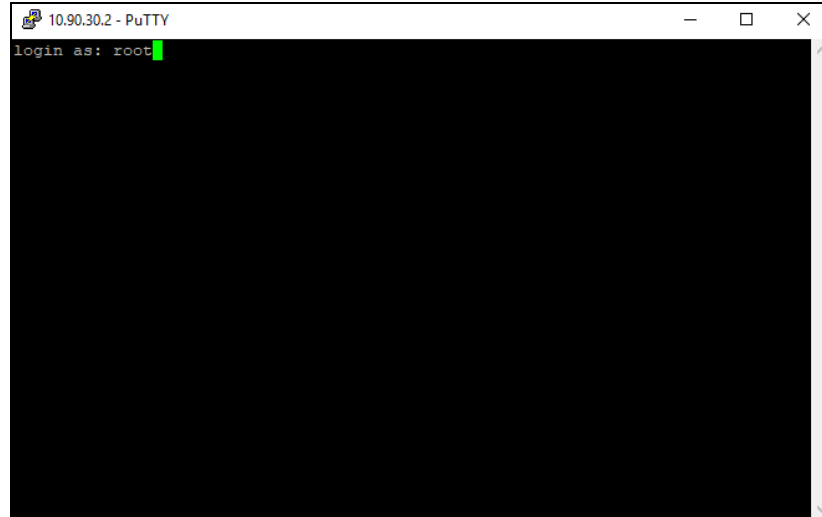


4. Navigate to the **Connection>SSH>X11** section. Enable the X11 forwarding feature and then enter the “localhost:0.0” on the X display location field to project the Linux UI image on your desired machine.

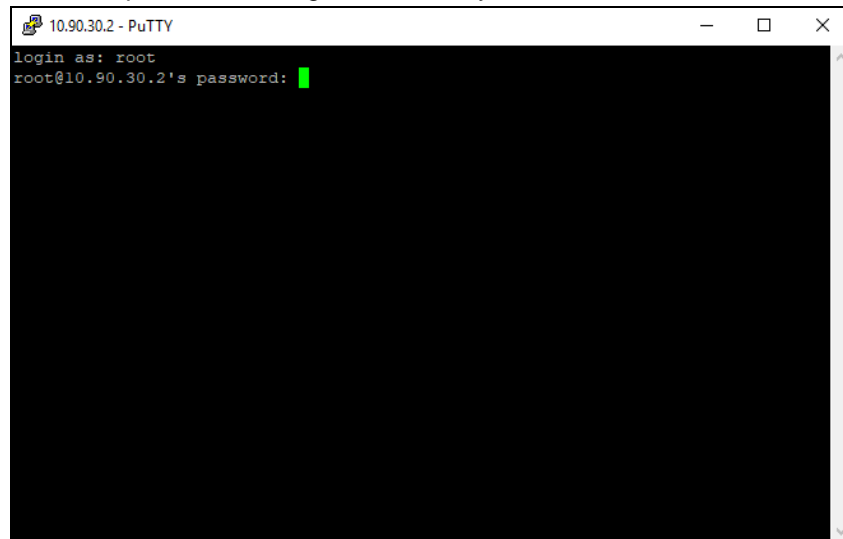


5. Click **Open** to connect to the Linux machine when you are done with the settings.

6. Log in using the root account.



7. Enter the password for login if necessary.



8. Create a new folder to launch the AhsayOBR under the **/usr/local** directory using the **red** command line below.

```
[root@[machine's name]]# mkdir -p /usr/local/obr
```

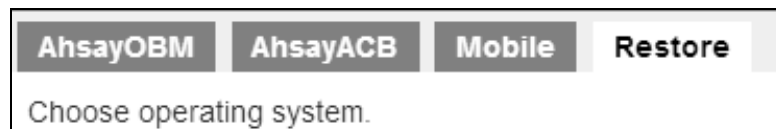
9. Navigate to the folder you have just created using the **red** command line below.

```
[root@[machine's name]]# cd /usr/local/obr
```

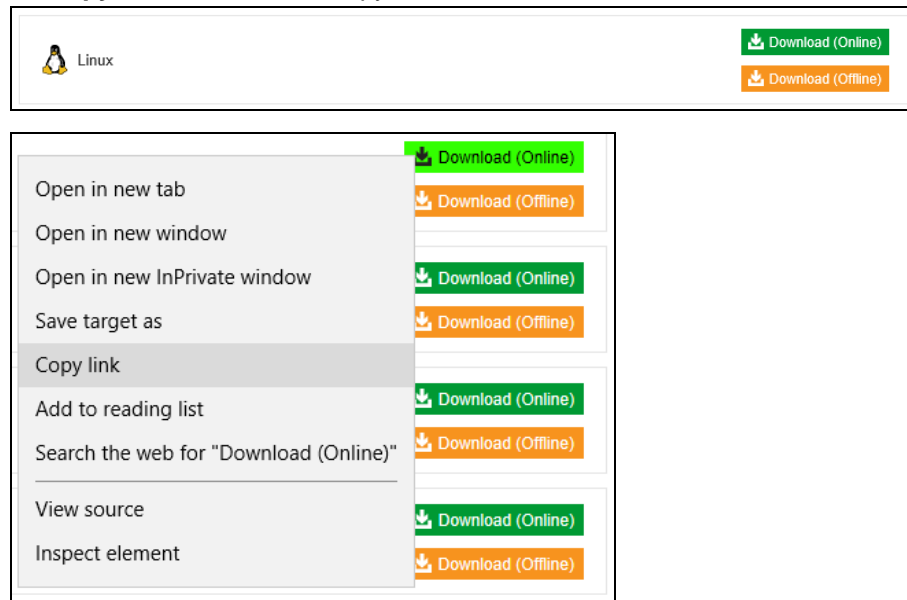
10. You now have to copy for download URL of the AhsayOBR Linux launcher from your backup service provider. Open the CBS login page provided by your backup service provider on a web browser, then click the blue download icon at the top right corner.



11. Click on the **Restore** tab.



12. Right click on the **Download (Online)** button in the Linux section, then click on **Copy Link Location** to copy the download URL.



13. Use the wget command in red below to download the AhsayOBR launcher from the AhsayCBS server.

```
[root@[machine's name] obr]# wget --no-check-certificate
https://10.90.10.11/cbs/download/obr-nix-443-10.90.10.11-
https-341320.sh
--2019-01-10 11:31:51--
https://10.90.10.11/cbs/download/obr-nix-443-10.90.10.11-
https-341320.sh
Connecting to 10.90.10.11:443... connected.
WARNING: cannot verify 10.90.10.11's certificate, issued
by '/C=CN/ST=Hong Kong (SAR)/L=Hong Kong/O=Ahsay System
Corporation Limited/OU=Information System
Department/CN=Ahsay System Corporation
Limited/emailAddress=ca@ahsay.com':
Self-signed certificate encountered.
WARNING: certificate common name 'Not Secure' doesn't
match requested host name '10.90.10.11'.
HTTP request sent, awaiting response... 200 OK
Length: 14267 (14K) [application/octet-stream]
Saving to: 'obr-nix-443-10.90.10.11-https-341320.sh'

100%[=====>] 14,267
--.-K/s in 0s

2019-01-10 11:31:51 (90.7 MB/s) - 'obr-nix-443-
10.90.10.11-https-341320.sh' saved [14267/14267]
```

14. Execute the AhsayOBR launcher using the red command line below.

```
[root@[machine's name] obr]sh obr-nix-443-10.90.10.11-
https-341320.sh
Log Time: Thu Jan 10 19:12:21 HKT 2019
Host address: https://10.90.10.11:443
Downloading file... jre-std-linux-amd64.tar.gz
% Total % Received % Xferd Average Speed Time
```

```

Time      Time  Current
          Dload Upload  Total
Spent    Left  Speed
100 91.3M 100 91.3M  0    0 8271k      0 0:00:11
0:00:11 --:--:-- 16.4M
Download file completed
Untar component file to /tmp/_obm.190110191221/jvm
Downloading file... app-common.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time  Current
          Dload Upload  Total
Spent    Left  Speed
100 34.9M 100 34.9M  0    0 2057k      0 0:00:17
0:00:17 --:--:-- 3905k
Download file completed
Untar component file to /tmp/_obm.190110191221
Downloading file... app-native-nix-x64.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time  Current
          Dload Upload  Total
Spent    Left  Speed
100 527k 100 527k  0    0 2189k      0 --:--:-- --
:--:-- --:--:-- 2198k
Download file completed
Untar component file to /tmp/_obm.190110191221
Downloading file... app-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time  Current
          Dload Upload  Total
Spent    Left  Speed
100 12068 100 12068  0    0 91670      0 --:--:-- --
:--:-- --:--:-- 92122
Download file completed
Untar component file to /tmp/_obm.190110191221
Downloading file... aua-common.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time  Current
          Dload Upload  Total
Spent    Left  Speed
100 10.9M 100 10.9M  0    0 13.9M      0 --:--:-- --
:--:-- --:--:-- 13.8M
Download file completed
Untar component file to /tmp/_obm.190110191221
Downloading file... aua-native-nix-x64.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time  Current
          Dload Upload  Total
Spent    Left  Speed
100 440k 100 440k  0    0 2395k      0 --:--:-- --
:--:~ --:~:~ 2393k
Download file completed
Untar component file to /tmp/_obm.190110191221
Downloading file... aua-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time  Current
          Dload Upload  Total
Spent    Left  Speed
100 1021 100 1021  0    0 6953      0 --:~:~:~ --
:~:~:~ --:~:~ 6993
Download file completed
Untar component file to /tmp/_obm.190110191221

```

```

Downloading file... util-common.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time       Time      Current
                                Dload  Upload   Total
Spent    Left  Speed
100 4829 100 4829  0    0 30207      0  --:--:--  --
:--:--  --:--:-- 30371
Download file completed
Untar component file to /tmp/_obm.190110191221
Downloading file... util-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time       Time      Current
                                Dload  Upload   Total
Spent    Left  Speed
100 85206 100 85206  0    0  523k      0  --:--:--  --
:--:--  --:--:--  526k
Download file completed
Untar component file to /tmp/_obm.190110191221
Downloading file... properties-common.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time       Time      Current
                                Dload  Upload   Total
Spent    Left  Speed
100 3583k  0 3583k  0    0 1169k      0  --:--:--  --
0:00:03  --:--:-- 1169k
Download file completed
Untar component file to /tmp/_obm.190110191221
tar: bin/cbCoreRes_ar.properties: time stamp 2019-01-10
19:19:13 is 364.00996201
8 s in the future
tar: bin/cbCoreRes_bg.properties: time stamp 2019-01-10
19:19:13 is 364.00798755
5 s in the future
tar: bin/cbCoreRes_ca.properties: time stamp 2019-01-10
19:19:13 is 364.00639365
1 s in the future
tar: bin/cbCoreRes_cs.properties: time stamp 2019-01-10
19:19:13 is 364.00486898
6 s in the future
tar: bin/cbCoreRes_da.properties: time stamp 2019-01-10
19:19:13 is 364.00353021
5 s in the future
tar: bin/cbCoreRes_de.properties: time stamp 2019-01-10
19:19:13 is 364.00220365
9 s in the future
tar: bin/cbCoreRes_el.properties: time stamp 2019-01-10
19:19:13 is 363.99877298
9 s in the future
tar: bin/cbCoreRes_en.properties: time stamp 2019-01-10
19:19:13 is 363.99769331
2 s in the future
tar: bin/cbCoreRes_es.properties: time stamp 2019-01-10
19:19:13 is 363.99634949
1 s in the future
tar: bin/cbCoreRes_eu.properties: time stamp 2019-01-10
19:19:13 is 363.99498788
7 s in the future
tar: bin/cbCoreRes_fi.properties: time stamp 2019-01-10
19:19:13 is 363.99340698
3 s in the future
tar: bin/cbCoreRes_fr.properties: time stamp 2019-01-10

```

```
19:19:13 is 363.99207223
s in the future
tar: bin/cbCoreRes_hu.properties: time stamp 2019-01-10
19:19:13 is 363.99024560
9 s in the future
tar: bin/cbCoreRes_in.properties: time stamp 2019-01-10
19:19:13 is 363.98905389
9 s in the future
tar: bin/cbCoreRes_is.properties: time stamp 2019-01-10
19:19:13 is 363.98768006
7 s in the future
tar: bin/cbCoreRes_it.properties: time stamp 2019-01-10
19:19:13 is 363.98638402
s in the future
tar: bin/cbCoreRes_iw.properties: time stamp 2019-01-10
19:19:13 is 363.98399312
1 s in the future
tar: bin/cbCoreRes_ja.properties: time stamp 2019-01-10
19:19:13 is 363.98176626
3 s in the future
tar: bin/cbCoreRes_ko.properties: time stamp 2019-01-10
19:19:13 is 363.97997839
7 s in the future
tar: bin/cbCoreRes_lt.properties: time stamp 2019-01-10
19:19:13 is 363.97841959
5 s in the future
tar: bin/cbCoreRes_nl.properties: time stamp 2019-01-10
19:19:13 is 363.97681824
2 s in the future
tar: bin/cbCoreRes_no.properties: time stamp 2019-01-10
19:19:13 is 363.97511530
2 s in the future
tar: bin/cbCoreRes_pl.properties: time stamp 2019-01-10
19:19:13 is 363.97304155
4 s in the future
tar: bin/cbCoreRes_pt_BR.properties: time stamp 2019-01-10
19:19:13 is 363.97141
2203 s in the future
tar: bin/cbCoreRes_pt_PT.properties: time stamp 2019-01-10
19:19:13 is 363.97016
3236 s in the future
tar: bin/cbCoreRes_ro.properties: time stamp 2019-01-10
19:19:13 is 363.96881652
5 s in the future
tar: bin/cbCoreRes_ru.properties: time stamp 2019-01-10
19:19:13 is 363.96525161
6 s in the future
tar: bin/cbCoreRes_sl.properties: time stamp 2019-01-10
19:19:13 is 363.96388018
7 s in the future
tar: bin/cbCoreRes_sv.properties: time stamp 2019-01-10
19:19:13 is 363.96245301
3 s in the future
tar: bin/cbCoreRes_th_TH.properties: time stamp 2019-01-10
19:19:13 is 363.95938
5322 s in the future
tar: bin/cbCoreRes_tr.properties: time stamp 2019-01-10
19:19:14 is 364.95782890
9 s in the future
tar: bin/cbCoreRes_uk.properties: time stamp 2019-01-10
19:19:14 is 364.9567065
```

```
s in the future
tar: bin/cbCoreRes_vi.properties: time stamp 2019-01-10
19:19:14 is 364.95497993
s in the future
tar: bin/cbCoreRes_zh_CN.properties: time stamp 2019-01-10
19:19:14 is 364.95348
1446 s in the future
tar: bin/cbCoreRes_zh_TW.properties: time stamp 2019-01-10
19:19:14 is 364.95174
5764 s in the future
tar: bin/cbUIRes_ar.properties: time stamp 2019-01-10
19:19:14 is 364.949912453
s in the future
tar: bin/cbUIRes_bg.properties: time stamp 2019-01-10
19:19:14 is 364.948756845
s in the future
tar: bin/cbUIRes_ca.properties: time stamp 2019-01-10
19:19:14 is 364.947652997
s in the future
tar: bin/cbUIRes_cs.properties: time stamp 2019-01-10
19:19:14 is 364.946449001
s in the future
tar: bin/cbUIRes_da.properties: time stamp 2019-01-10
19:19:14 is 364.945071583
s in the future
tar: bin/cbUIRes_de.properties: time stamp 2019-01-10
19:19:14 is 364.94383321 s
in the future
tar: bin/cbUIRes_el.properties: time stamp 2019-01-10
19:19:14 is 364.941068395
s in the future
tar: bin/cbUIRes_en.properties: time stamp 2019-01-10
19:19:14 is 364.939688159
s in the future
tar: bin/cbUIRes_es.properties: time stamp 2019-01-10
19:19:14 is 364.938903553
s in the future
tar: bin/cbUIRes_eu.properties: time stamp 2019-01-10
19:19:14 is 364.937802261
s in the future
tar: bin/cbUIRes_fi.properties: time stamp 2019-01-10
19:19:14 is 364.936630633
s in the future
tar: bin/cbUIRes_fr.properties: time stamp 2019-01-10
19:19:14 is 364.935570934
s in the future
tar: bin/cbUIRes_hu.properties: time stamp 2019-01-10
19:19:14 is 364.934241804
s in the future
tar: bin/cbUIRes_in.properties: time stamp 2019-01-10
19:19:14 is 364.933439044
s in the future
tar: bin/cbUIRes_is.properties: time stamp 2019-01-10
19:19:14 is 364.932281817
s in the future
tar: bin/cbUIRes_it.properties: time stamp 2019-01-10
19:19:14 is 364.931574036
s in the future
tar: bin/cbUIRes_iw.properties: time stamp 2019-01-10
19:19:14 is 364.929645645
s in the future
```



```
tar: bin/cbUIRes_ja.properties: time stamp 2019-01-10
19:19:14 is 364.92810423 s
in the future
tar: bin/cbUIRes_ko.properties: time stamp 2019-01-10
19:19:14 is 364.926885506
s in the future
tar: bin/cbUIRes_lt.properties: time stamp 2019-01-10
19:19:14 is 364.925783535
s in the future
tar: bin/cbUIRes_nl.properties: time stamp 2019-01-10
19:19:14 is 364.925000598
s in the future
tar: bin/cbUIRes_no.properties: time stamp 2019-01-10
19:19:14 is 364.92390097 s
in the future
tar: bin/cbUIRes_pl.properties: time stamp 2019-01-10
19:19:14 is 364.922821718
s in the future
tar: bin/cbUIRes_pt_BR.properties: time stamp 2019-01-10
19:19:14 is 364.9217997
56 s in the future
tar: bin/cbUIRes_pt_PT.properties: time stamp 2019-01-10
19:19:14 is 364.9206963
48 s in the future
tar: bin/cbUIRes_ro.properties: time stamp 2019-01-10
19:19:14 is 364.919715448
s in the future
tar: bin/cbUIRes_ru.properties: time stamp 2019-01-10
19:19:14 is 364.917405335
s in the future
tar: bin/cbUIRes_sl.properties: time stamp 2019-01-10
19:19:14 is 364.916337922
s in the future
tar: bin/cbUIRes_sv.properties: time stamp 2019-01-10
19:19:14 is 364.915580412
s in the future
tar: bin/cbUIRes_th_TH.properties: time stamp 2019-01-10
19:19:14 is 364.9132567
04 s in the future
tar: bin/cbUIRes_tr.properties: time stamp 2019-01-10
19:19:14 is 364.912315192
s in the future
tar: bin/cbUIRes_uk.properties: time stamp 2019-01-10
19:19:14 is 364.911250495
s in the future
tar: bin/cbUIRes_vi.properties: time stamp 2019-01-10
19:19:14 is 364.909950758
s in the future
tar: bin/cbUIRes_zh_CN.properties: time stamp 2019-01-10
19:19:14 is 364.9088455
38 s in the future
tar: bin/cbUIRes_zh_TW.properties: time stamp 2019-01-10
19:19:14 is 364.9076520
89 s in the future
tar: bin/obxRes_ar.properties: time stamp 2019-01-10
19:19:14 is 364.905026221 s
in the future
tar: bin/obxRes_bg.properties: time stamp 2019-01-10
19:19:14 is 364.903200947 s
in the future
tar: bin/obxRes_ca.properties: time stamp 2019-01-10
```

```
19:19:14 is 364.901819284 s
in the future
tar: bin/obxRes_cs.properties: time stamp 2019-01-10
19:19:14 is 364.900340101 s
in the future
tar: bin/obxRes_da.properties: time stamp 2019-01-10
19:19:14 is 364.898994766 s
in the future
tar: bin/obxRes_de.properties: time stamp 2019-01-10
19:19:14 is 364.897585459 s
in the future
tar: bin/obxRes_el.properties: time stamp 2019-01-10
19:19:14 is 364.894206979 s
in the future
tar: bin/obxRes_en.properties: time stamp 2019-01-10
19:19:14 is 364.892900696 s
in the future
tar: bin/obxRes_es.properties: time stamp 2019-01-10
19:19:14 is 364.891533288 s
in the future
tar: bin/obxRes_eu.properties: time stamp 2019-01-10
19:19:14 is 364.890199607 s
in the future
tar: bin/obxRes_fi.properties: time stamp 2019-01-10
19:19:14 is 364.888847095 s
in the future
tar: bin/obxRes_fr.properties: time stamp 2019-01-10
19:19:14 is 364.886908785 s
in the future
tar: bin/obxRes_hu.properties: time stamp 2019-01-10
19:19:14 is 364.885563273 s
in the future
tar: bin/obxRes_in.properties: time stamp 2019-01-10
19:19:14 is 364.884200665 s
in the future
tar: bin/obxRes_is.properties: time stamp 2019-01-10
19:19:14 is 364.88285162 s
in the future
tar: bin/obxRes_it.properties: time stamp 2019-01-10
19:19:14 is 364.881573622 s
in the future
tar: bin/obxRes_iw.properties: time stamp 2019-01-10
19:19:14 is 364.87947313 s
in the future
tar: bin/obxRes_ja.properties: time stamp 2019-01-10
19:19:14 is 364.877338151 s
in the future
tar: bin/obxRes_ko.properties: time stamp 2019-01-10
19:19:14 is 364.875575036 s
in the future
tar: bin/obxRes_lt.properties: time stamp 2019-01-10
19:19:14 is 364.873947217 s
in the future
tar: bin/obxRes_nl.properties: time stamp 2019-01-10
19:19:14 is 364.872346257 s
in the future
tar: bin/obxRes_no.properties: time stamp 2019-01-10
19:19:14 is 364.870994875 s
in the future
tar: bin/obxRes_pl.properties: time stamp 2019-01-10
19:19:14 is 364.869703443 s
```

```

in the future
tar: bin/obxRes_pt_BR.properties: time stamp 2019-01-10
19:19:14 is 364.86813757
5 s in the future
tar: bin/obxRes_pt_PT.properties: time stamp 2019-01-10
19:19:14 is 364.86652777
6 s in the future
tar: bin/obxRes_ro.properties: time stamp 2019-01-10
19:19:14 is 364.865472964 s
in the future
tar: bin/obxRes_ru.properties: time stamp 2019-01-10
19:19:14 is 364.862177505 s
in the future
tar: bin/obxRes_sl.properties: time stamp 2019-01-10
19:19:14 is 364.860547722 s
in the future
tar: bin/obxRes_sv.properties: time stamp 2019-01-10
19:19:14 is 364.859291451 s
in the future
tar: bin/obxRes_th_TH.properties: time stamp 2019-01-10
19:19:14 is 364.85625508
3 s in the future
tar: bin/obxRes_tr.properties: time stamp 2019-01-10
19:19:14 is 364.854944322 s
in the future
tar: bin/obxRes_uk.properties: time stamp 2019-01-10
19:19:14 is 364.853606566 s
in the future
tar: bin/obxRes_vi.properties: time stamp 2019-01-10
19:19:14 is 364.851829911 s
in the future
tar: bin/obxRes_zh_CN.properties: time stamp 2019-01-10
19:19:14 is 364.85001248
8 s in the future
tar: bin/obxRes_zh_TW.properties: time stamp 2019-01-10
19:19:14 is 364.84864699
7 s in the future
Downloading file... app-inst-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time      Current
                                Dload  Upload  Total
Spent    Left  Speed
100 172k 100 172k  0    0 1029k    0  ---:---:--  --
:---:--  ---:---:-- 1028k
Download file completed
Untar component file to /tmp/_obm.190110191221
Downloading file... aua-inst-nix-obm.tar.gz
  % Total    % Received % Xferd  Average Speed   Time
Time      Time      Current
                                Dload  Upload  Total
Spent    Left  Speed
100 54564 100 54564  0    0  383k    0  ---:---:--  --
:---:--  ---:---:--  386k
Download file completed
Untar component file to /tmp/_obm.190110191221
Configure Application Path: /usr/local/obr/RestoreWizard
Log Time: Thu Jan 10 19:13:09 HKT 2019

Verifying current user privilege ...
Current user has enough privilege to "config".

```

Start configuration on Generic Linux Platform (Linux)

Installation Path: /usr/local/obr/RestoreWizard

Minimum supported JVM version: 1.7

Maximum supported JVM version: 1.8

Current JVM version is supported for installation.

Create Backup Manager JVM, Path:

/usr/local/obr/RestoreWizard/jvm/bin/bJW

Create Scheduler Service JVM, Path:

/usr/local/obr/RestoreWizard/jvm/bin/bschJW

Setup File Permissions

localuser:root being added to access control list

X Error of failed request: BadValue (integer parameter out of range for operation)

Major opcode of failed request: 109 (X_ChangeHosts)

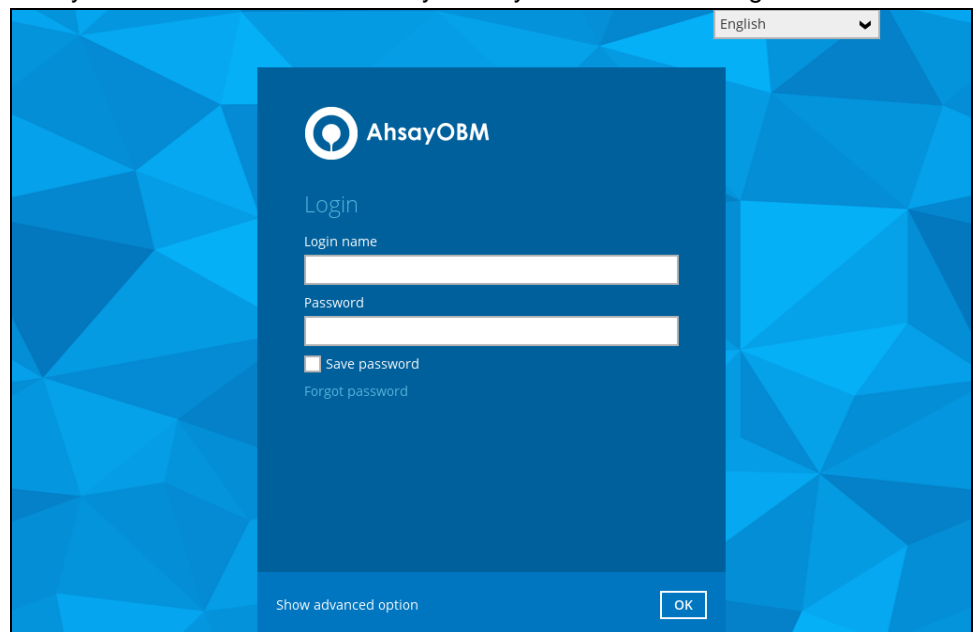
Value in failed request: 0xe

Serial number of failed request: 7

Current serial number in output stream: 9

Startup Ahsay Online Backup Manager ...

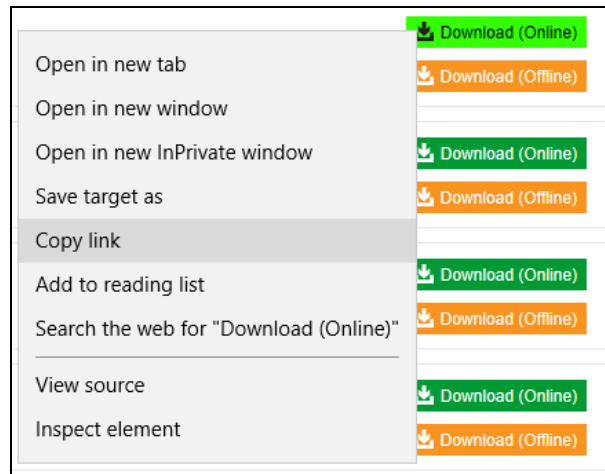
15. AhsayOBR is launched successfully when you see the following screen.



Option 2: Offline Installation

If you would like to use offline installation option, replace the **steps 12-15** in [Option 1: Online Installation](#) with the following steps:

1. Right click on the **Download (Offline)** button in the Linux section, then click on **Copy Link Location** to copy the download URL.



2. Use the `wget` command in **red** below to download the AhsayOBR launcher from the AhsayCBS server.

```
[root@localhost obr]# wget --no-check-certificate
https://10.90.10.12/cbs/download /obr-
linux.tar.gz
--2019-01-11 12:17:39--
https://10.90.10.12/cbs/download/obr-linux.tar.gz
Connecting to 10.90.10.12:443... connected.
WARNING: cannot verify 10.90.10.12's certificate, issued
by '/C=CN/ST=Hong Kong (SAR)/L=Hong
Kong/O=Ahsay System Corporation Limited/OU=Information
System Depar tment/CN=Ahsay System
Corporation Limited/emailAddress=ca@ahsay.com':
Self-signed certificate encountered.
WARNING: certificate common name 'Not Secure'
doesn't match requested host n ame
'10.90.10.12'.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/octet-stream]
Saving to: 'obr-linux.tar.gz'

[ <=> ]
243,627,504 611KB/s in 8m 52s

2019-01-11 12:26:41 (447 KB/s) - 'obr-linux.tar.gz'
saved [243627504]
```

3. Use the `tar` command in **red** below to extract the downloaded AhsayOBR launcher .gz file.

```
root@localhost obr]# tar zxvf obr-linux.tar.gz
app.pkg/version.txt
app.pkg/app-common.tar.gz
```

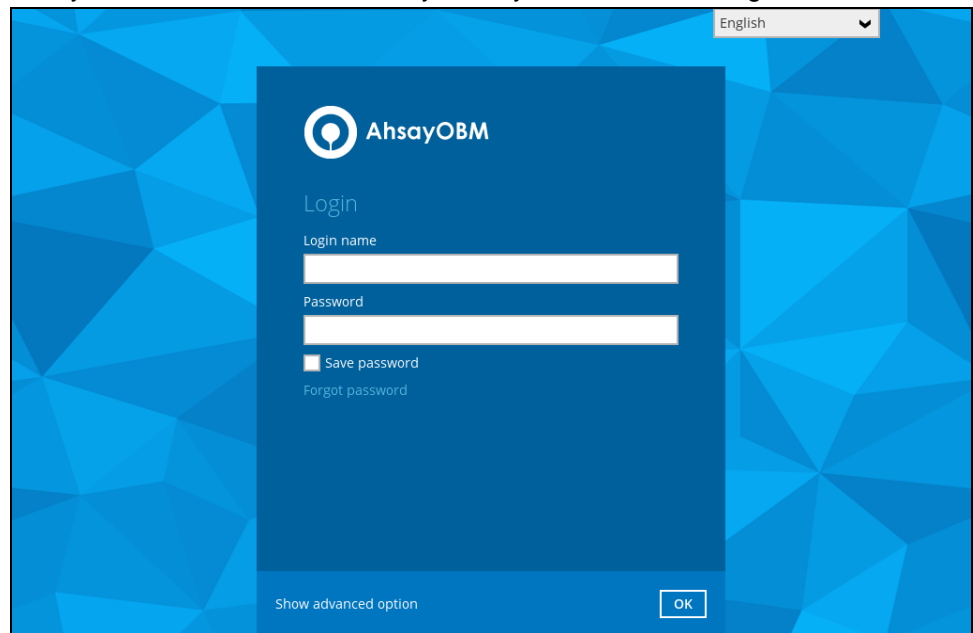
```
app.pkg/app-native-nix-x64.tar.gz
app.pkg/app-native-nix-x86.tar.gz
app.pkg/app-nix-obm.tar.gz
app.pkg/aua-common.tar.gz
app.pkg/aua-native-nix-x64.tar.gz
app.pkg/aua-native-nix-x86.tar.gz
app.pkg/aua-nix-obm.tar.gz
app.pkg/util-common.tar.gz
app.pkg/util-nix-obm.tar.gz
app.pkg/properties-common.tar.gz
app.pkg/app-inst-nix-obm.tar.gz
app.pkg/aua-inst-nix-obm.tar.gz
app.pkg/jre-std-linux-amd64.tar.gz
app.pkg/jre-std-linux-x86-586.tar.gz
obr-linux.sh
```

4. Execute the AhsayOBR launcher using the **red** command line below.

```
[root@localhost obr]# sh obr-linux.sh
Log Time: Fri Jan 11 12:36:14 HKT 2019
Using package in /usr/local/obr/app.pkg
Package version: 8.0.5.0
Untar jre-std-linux-amd64.tar.gz to
/tmp/_obm.190111123614/jvm
Untar app-common.tar.gz to /tmp/_obm.190111123614
Untar app-native-nix-x64.tar.gz to
/tmp/_obm.190111123614
Untar app-nix-obm.tar.gz to /tmp/_obm.190111123614
Untar aua-common.tar.gz to /tmp/_obm.190111123614
Untar aua-native-nix-x64.tar.gz to
/tmp/_obm.190111123614
Untar aua-nix-obm.tar.gz to /tmp/_obm.190111123614
Untar util-common.tar.gz to /tmp/_obm.190111123614
Untar util-nix-obm.tar.gz to /tmp/_obm.190111123614
Untar properties-common.tar.gz to /tmp/_obm.190111123614
Untar app-inst-nix-obm.tar.gz to /tmp/_obm.190111123614
Untar aua-inst-nix-obm.tar.gz to /tmp/_obm.190111123614
mv: cannot move '/tmp/_obm.190111123614/aua' to
'/usr/local/obr/RestoreWizard/aua': File exists
mv: cannot move '/tmp/_obm.190111123614/bin' to
'/usr/local/obr/RestoreWizard/bin': File exists
mv: cannot move '/tmp/_obm.190111123614/jvm' to
'/usr/local/obr/RestoreWizard/jvm': File exists
mv: cannot move '/tmp/_obm.190111123614/licenses' to
'/usr/local/obr/RestoreWizard/licenses': File
exists
mv: cannot move '/tmp/_obm.190111123614/termsfuse' to
'/usr/local/obr/RestoreWizard/termsfuse': File
exists
mv: cannot move '/tmp/_obm.190111123614/util' to
'/usr/local/obr/RestoreWizard/util': File exists
Configure Application Path: /usr/local/obr/RestoreWizard
Log Time: Fri Jan 11 12:37:00 HKT 2019
```

```
Verifying current user privilege ...  
Current user has enough privilege to "config".  
  
Start configuration on Generic Linux Platform (Linux)  
  
Installation Path: /usr/local/obr/RestoreWizard  
Minimum supported JVM version: 1.7  
Maximum supported JVM version: 1.8  
Current JVM version is supported for installation.  
Setup File Permissions  
localuser:root being added to access control list  
X Error of failed request: BadValue (integer parameter  
out of range for operation)  
Major opcode of failed request: 109 (X_ChangeHosts)  
Value in failed request: 0xe  
Serial number of failed request: 7  
Current serial number in output stream: 9  
Startup Ahsay Online Backup Manager ...
```

5. AhsayOBR is launched successfully when you see the following screen.

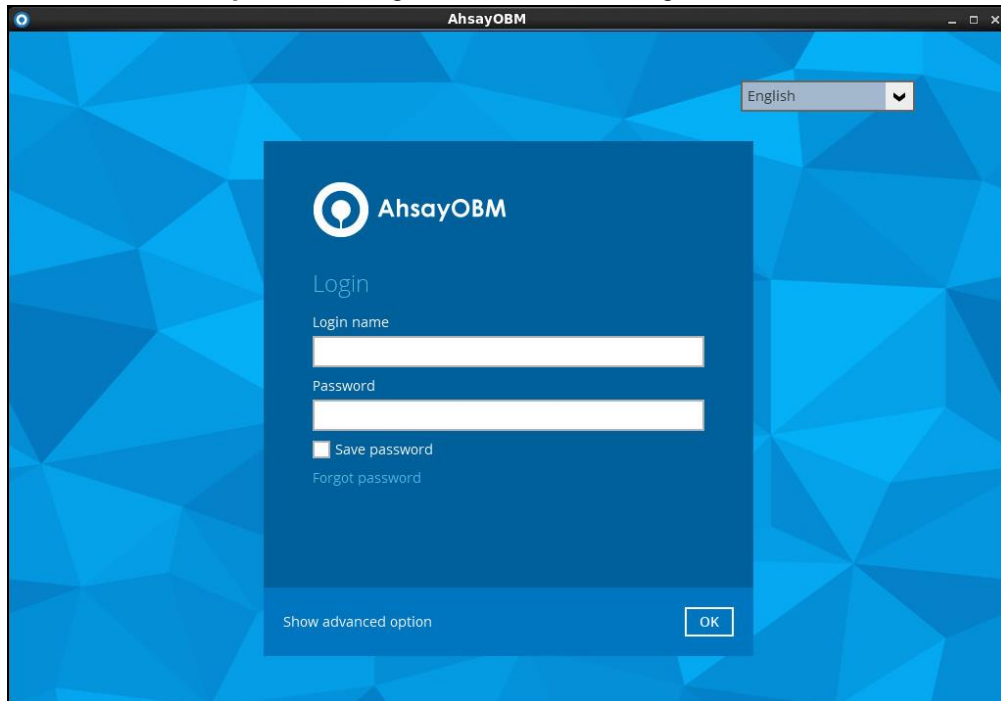


6 Start AhsayOBR

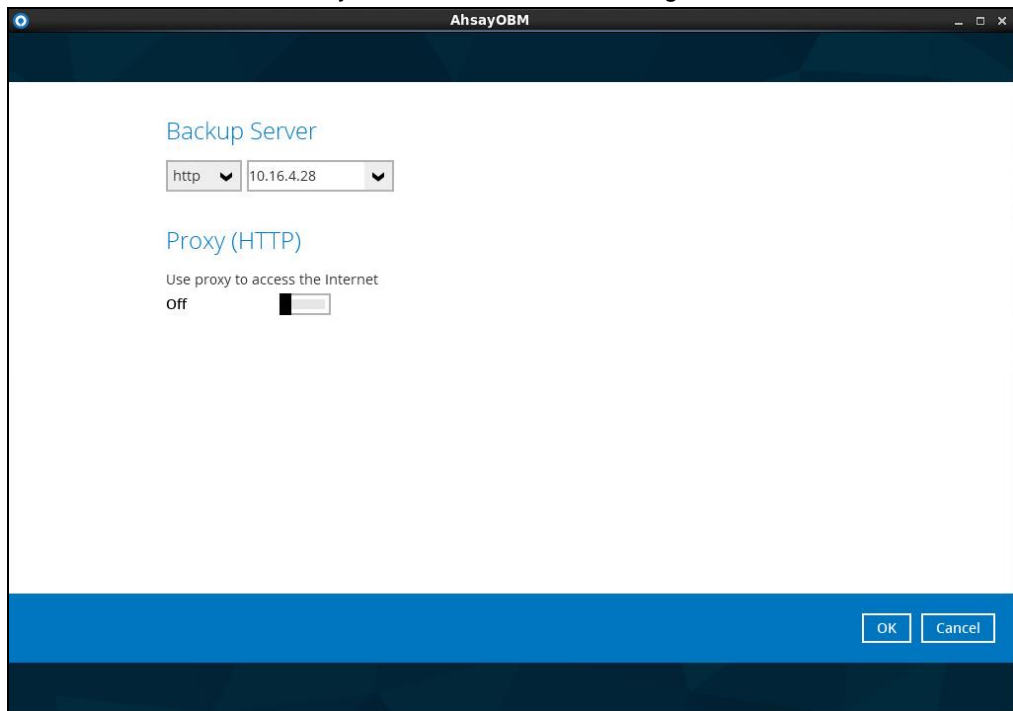
Starting with AhsayOBR v8.5.0.0, Two-Factor Authentication (2FA) is introduced to provide high level of security protection to the backup data that will be restored. With this new feature, there are several scenarios that will be encountered for first time login. Login steps for the different scenarios will be discussed in this chapter.

6.1 Login to AhsayOBR without 2FA

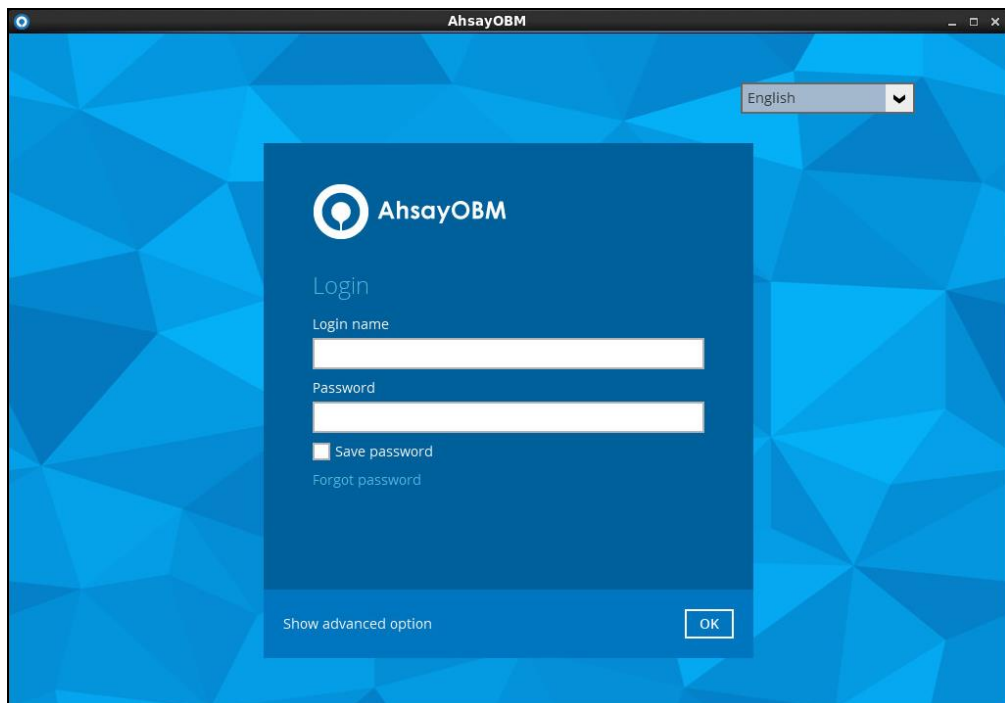
1. The AhsayOBR will launch automatically, and you will see the following screen. Click **Show advanced option** to configure the network settings.



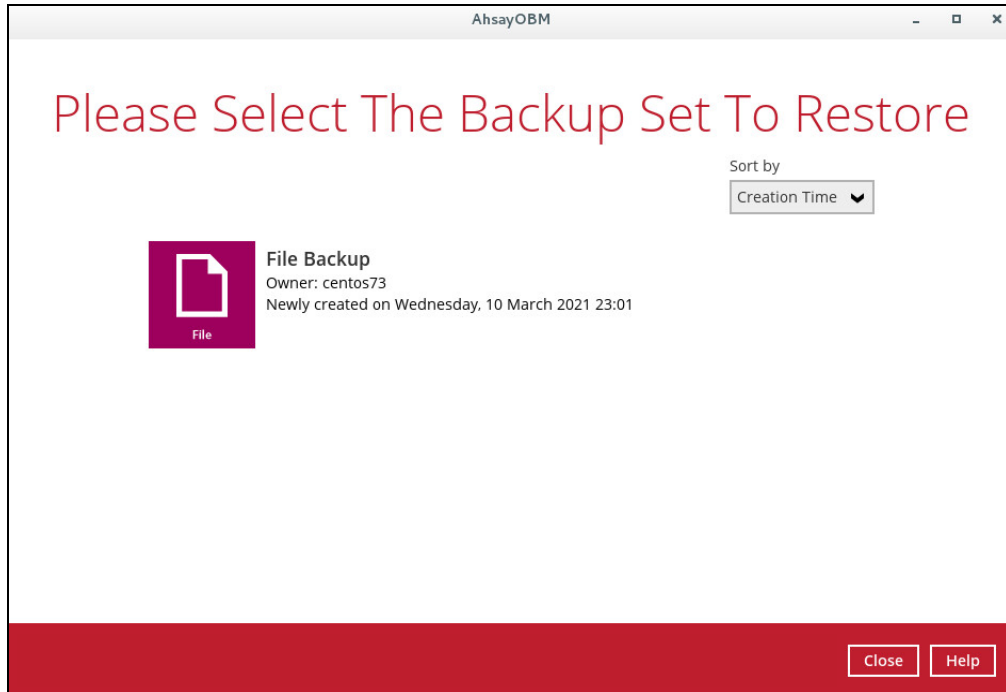
2. Enter the Backup Server address provided by your backup service provider. If you need to use proxy to access the Internet, enable the Proxy feature and fill in the relevant information. Click **OK** when you are done with the settings.



3. Enter the login name and password of your Client Backup account, then click **OK** to log in.

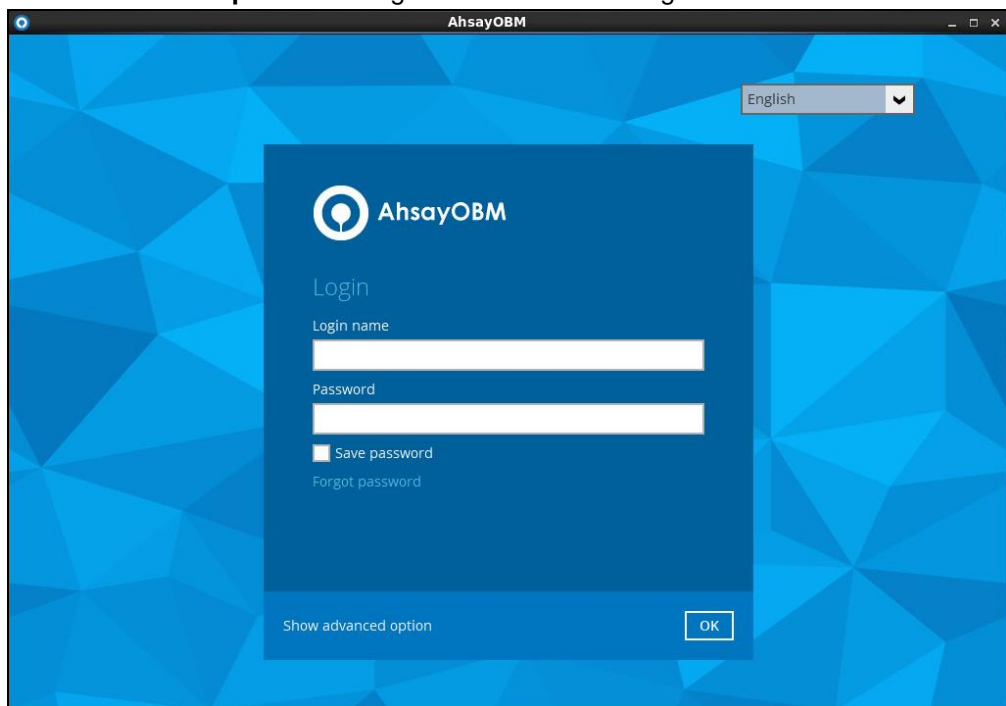


4. After a successful login, the available backup set(s) for restore will be displayed.

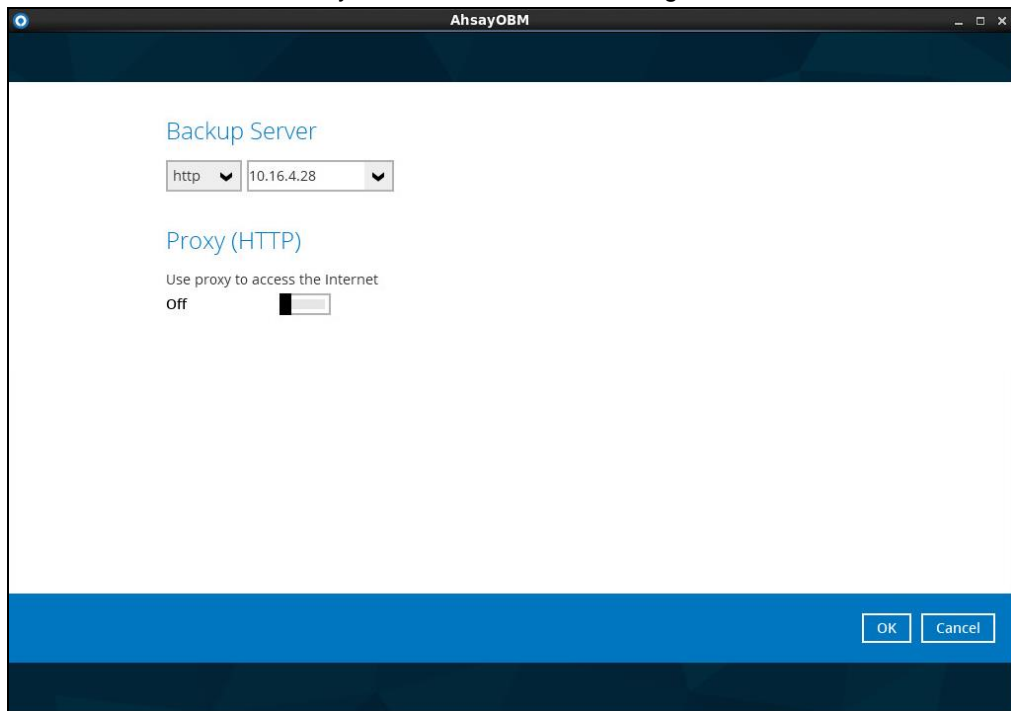


6.2 Login to AhsayOBR with 2FA enabled

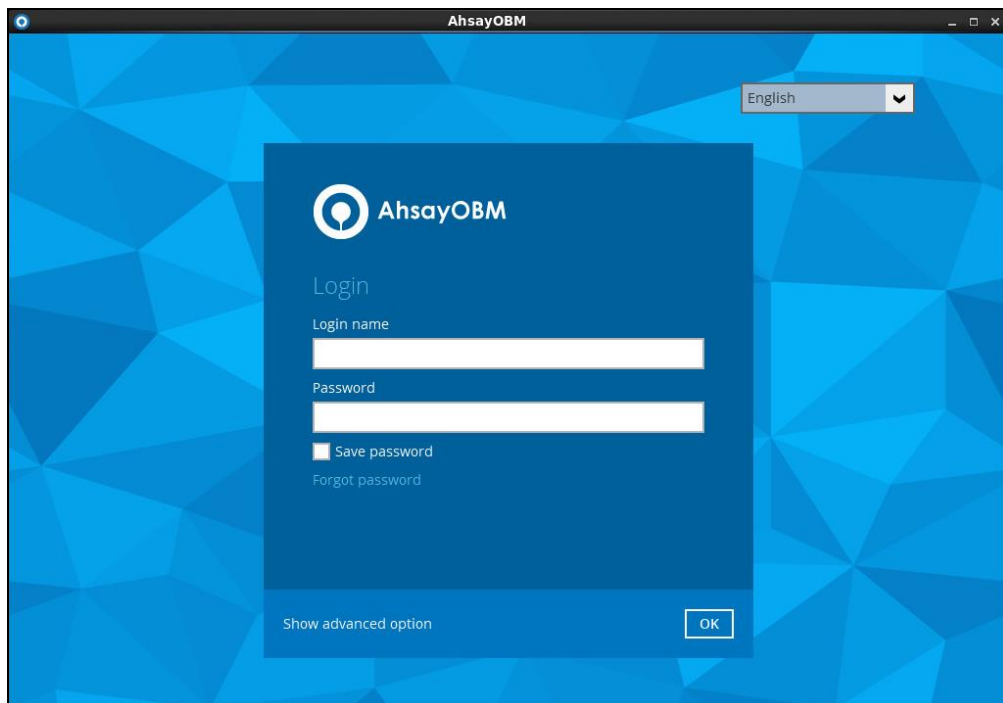
1. The AhsayOBR will launch automatically, and you will see the following screen. Click **Show advanced option** to configure the network settings.



2. Enter the Backup Server address provided by your backup service provider. If you need to use proxy to access the Internet, enable the Proxy feature and fill in the relevant information. Click **OK** when you are done with the settings.

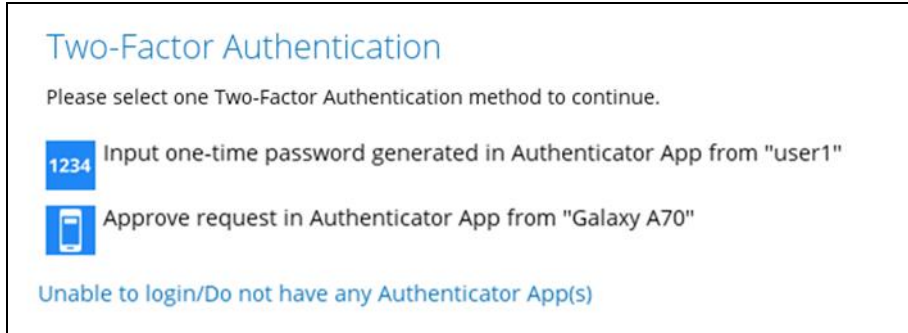


3. Enter the login name and password of your Client Backup account, then click **OK** to log in.



4. If the 2FA setup is enabled, the following screen will be displayed. Select the authentication method to continue with the login.

Example: the AhsayOBM user account is setup with 2FA using Ahsay Mobile Authenticator on a Mobile device called "Galaxy A70" and a third party TOTP Authentication app such as Google Authenticator, Microsoft Authenticator, LastPass etc.

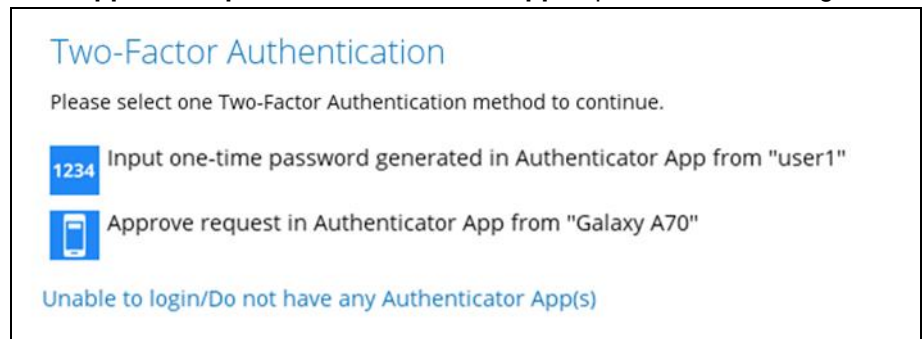


There are two authentication method to choose from which are:

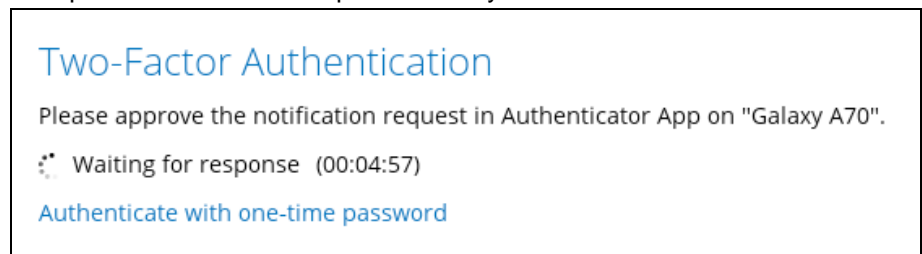
- Ahsay Mobile Authenticator
- TOTP Authentication App

If **Ahsay Mobile** will be used as authenticator, follow the steps below to log in.

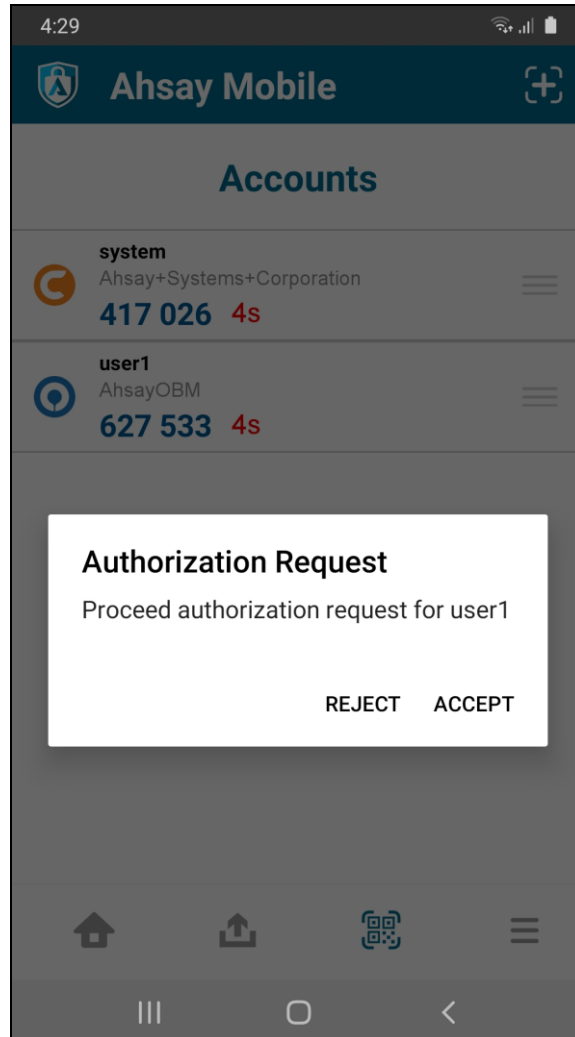
- i. Click **Approve request in Authenticator App** to proceed with the login.



- ii. Accept the authorization request sent to your device.

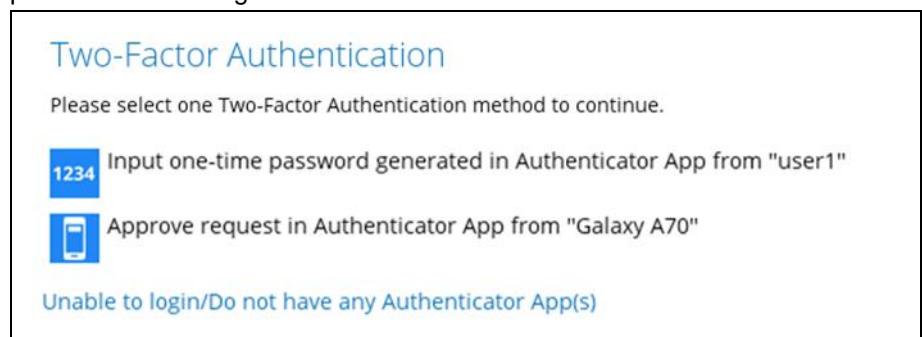


This is a sample of the authorization request sent to Ahsay Mobile.



If a third-party **TOTP Authenticator App** will be used, follow the steps below to log in.

- i. Click **Input one-time password generated in Authenticator App** to proceed with the login.



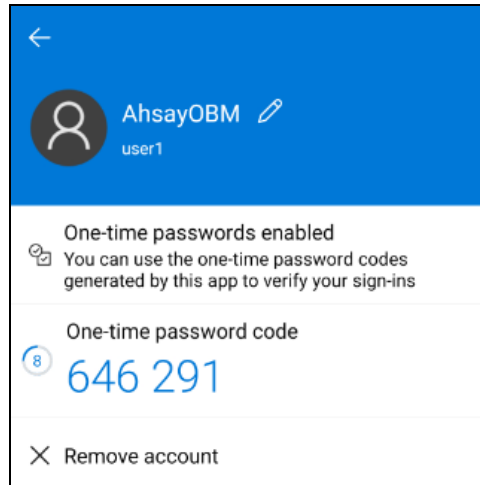
- ii. Enter the one-time password that is generated by the app and click **Next**.

Two-Factor Authentication

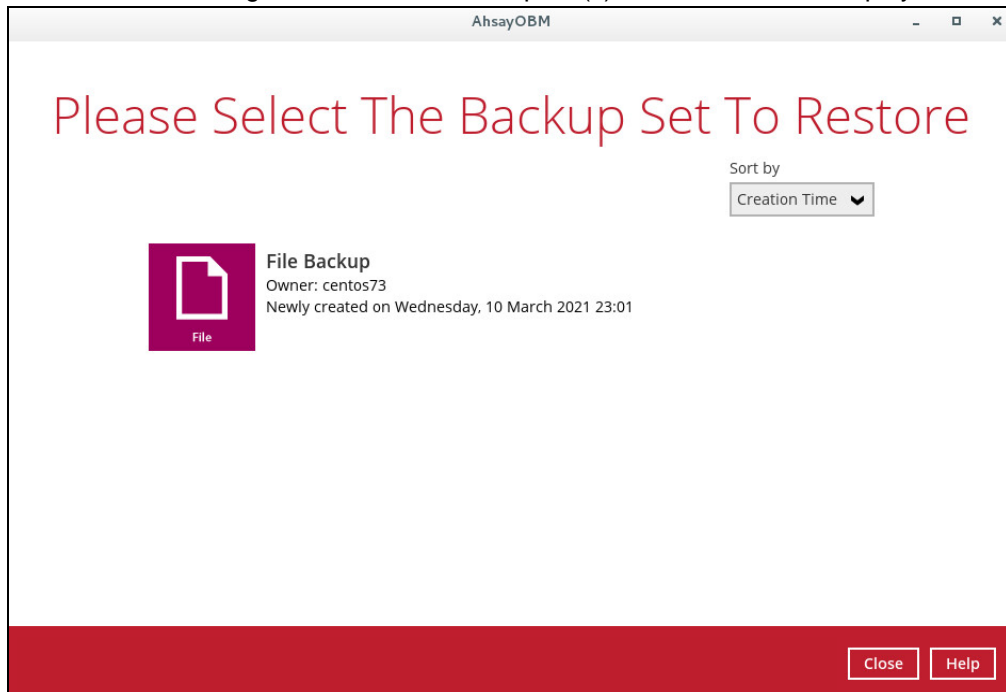
Please input the one-time password generated in Authenticator App from "user1" (*****75).

 (00:00:08)
[Unable to login](#)

This is a sample of the one-time password generated in the third-party Authenticator App Microsoft Authenticator.



5. After a successful login, the available backup set(s) for restore will be displayed.



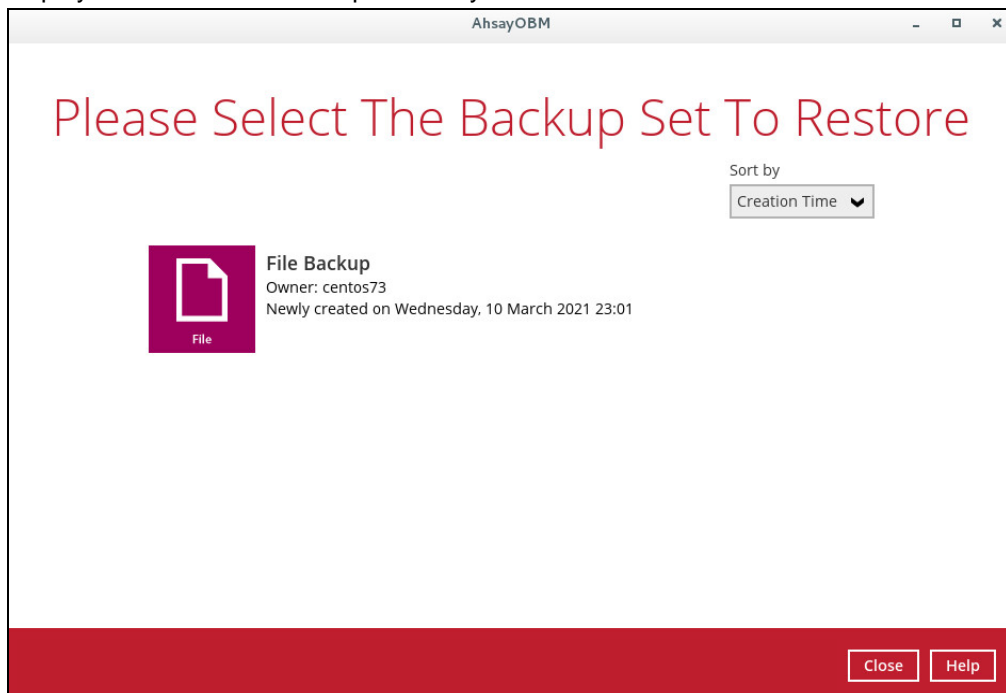
7 Restore File Backup Sets

The following is a typical end-to-end process for a file normal restore. The actual steps may slightly vary depending on the module you are restoring.

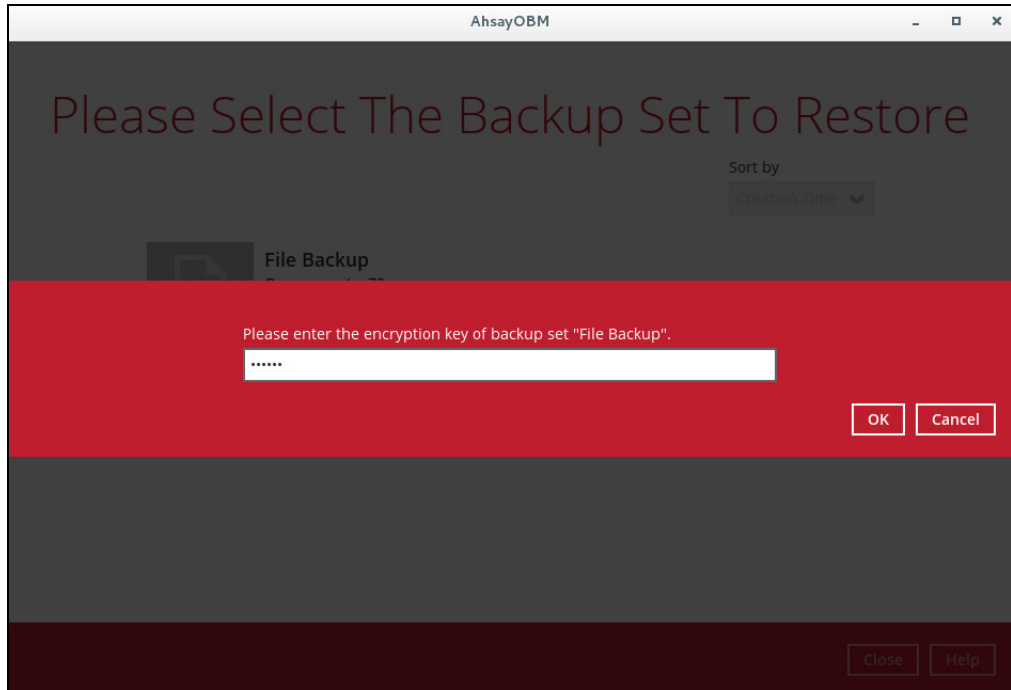
NOTES

1. AhsayOBR can be used to restore data that is backed up with AhsayOBM or AhsayACB.
2. Clicking **Cancel** then **Yes** at any point during the steps below will close the software completely. If you wish to use it after the software is closed, you will have to launch it again according to the instructions in [Ch. 5.1.2 Launch AhsayOBR](#) or [Ch. 5.2.1 Download and Launch AhsayOBR](#).

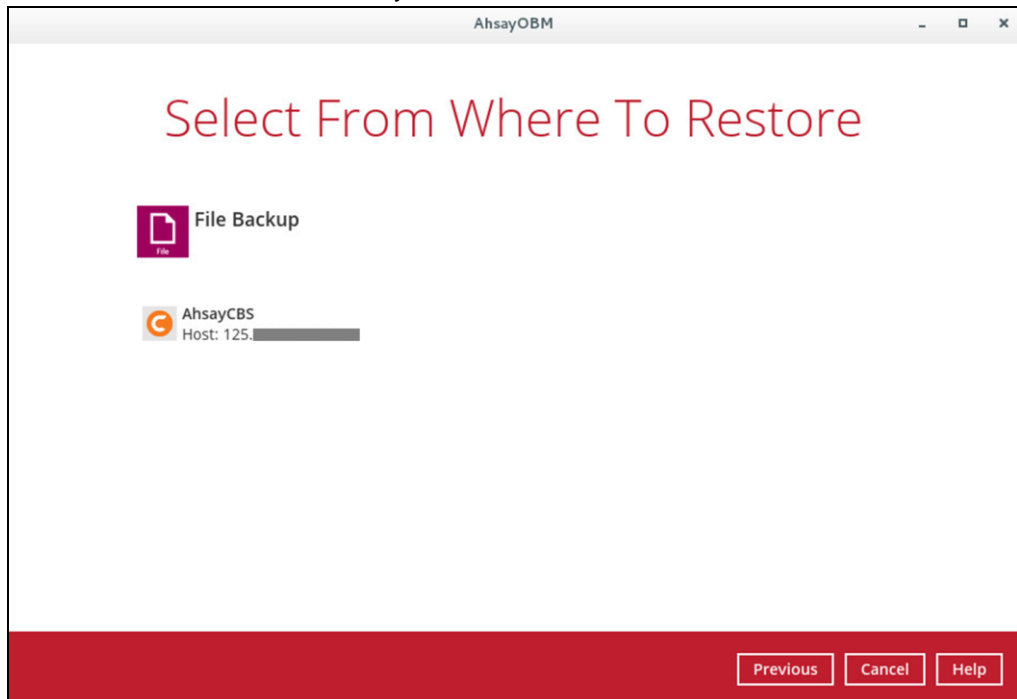
1. After logging in to your backup account, the available backup set(s) for restore will be displayed. Click on the backup set that you would like to restore.



2. Enter the encryption key of the selected backup set, then click **OK** to proceed.



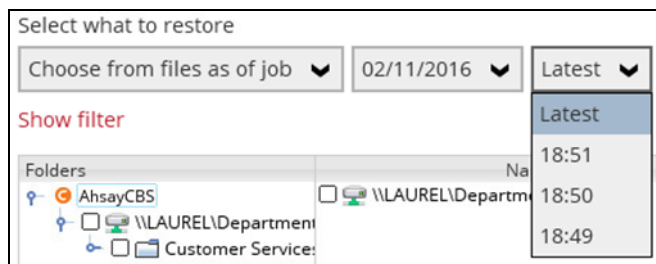
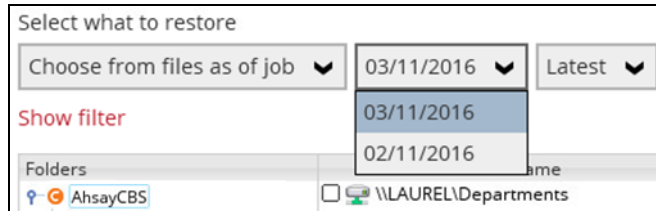
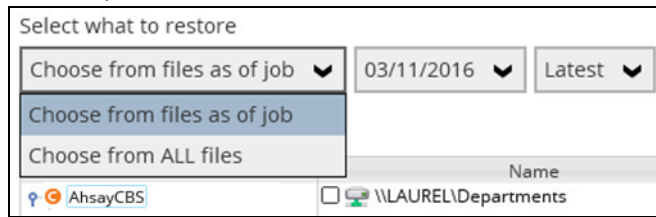
3. Click on the location from where you would like to restore the data from.



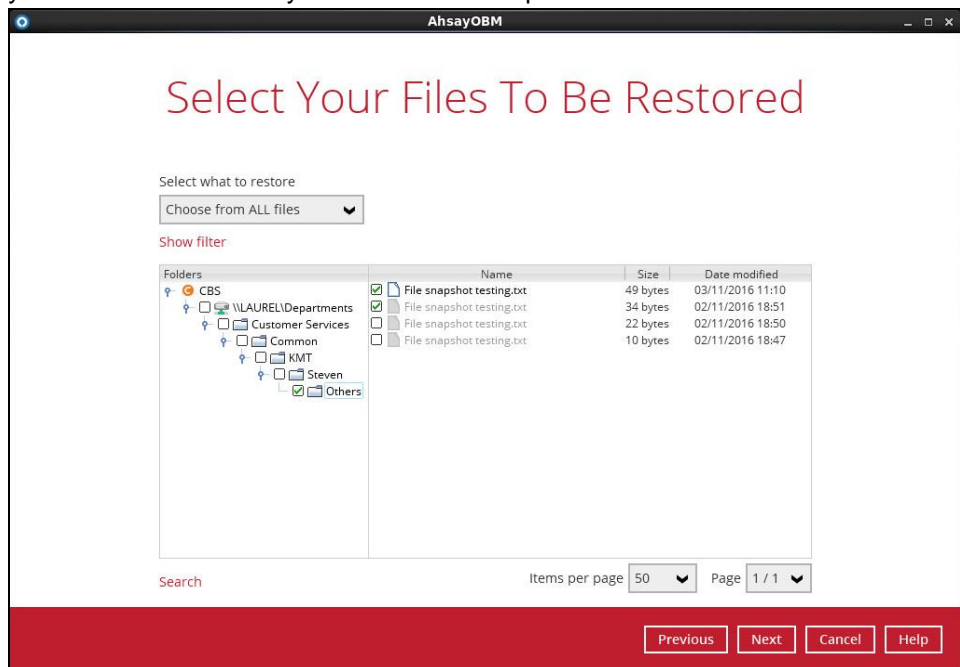
4. Select to restore files from a specific backup job, or from all files available, then select the files or folders that you would like to restore.

There are two options from the **Select what to restore** drop-down menu:

- ⦿ **Choose from files as of job** – this option allows you to select a backup version from a specific date and time to restore.



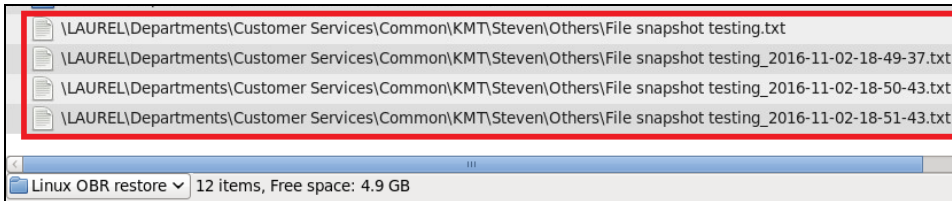
- ⦿ **Choose from ALL files** – this option allows you to restore all the available backup versions for this backup set. Among all the available backup versions, you can even select only some of the backup versions of a file to restore.



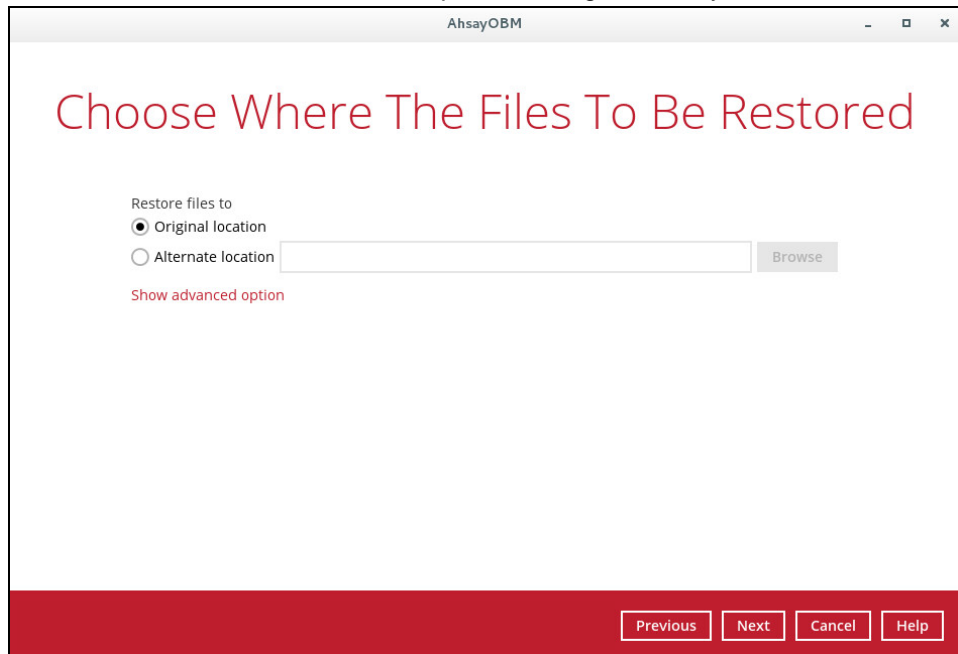
Below is an example showing all the available backup versions of the **File snapshot testing.txt** file. The latest version is shown in solid black color and all the previous versions are shown in grey color. You can identify the file version from the **Date modified** column.

	Name	Size	Date modified
<input checked="" type="checkbox"/>	File snapshot testing.txt	49 bytes	03/11/2016 11:10
<input checked="" type="checkbox"/>	File snapshot testing.txt	34 bytes	02/11/2016 18:51
<input type="checkbox"/>	File snapshot testing.txt	22 bytes	02/11/2016 18:50
<input type="checkbox"/>	File snapshot testing.txt	10 bytes	02/11/2016 18:47

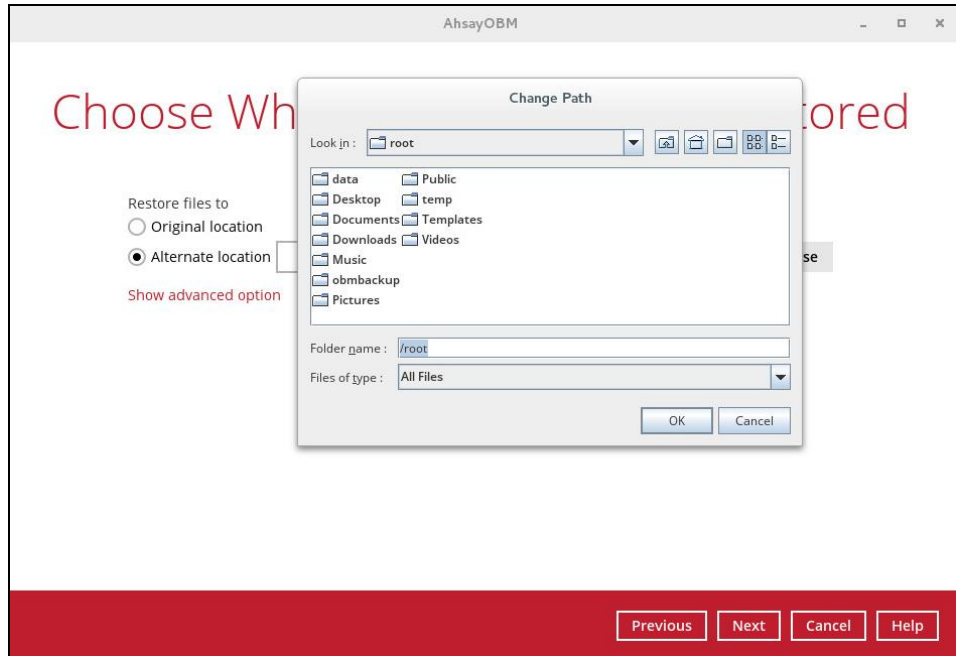
When the restore is done, you will see all the selected backup versions in the restore destination. The latest backup version has the file name as the original file, while the previous versions have the time stamps added to their file names for easy identification.



5. Click **Next** to proceed when you are done with the selections.
6. Select to restore the files to their **Original location**, or to an **Alternate location**, then click **Next** to proceed.
 - **Original location** – the backed up data will be restored to the computer running the AhsayOBR under the same directory path as on the machine storing the backup source. For example, the backup source files are stored in root/Downloads same as on the computer running the AhsayOBR.

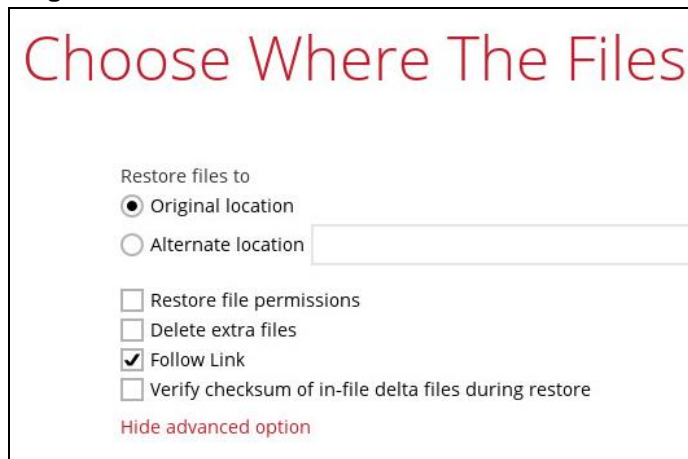


- **Alternate location** – you can choose to restore data to an alternate location on the computer where AhsayOBR is running. Click **Browse** to choose a location, then click **OK** to select.

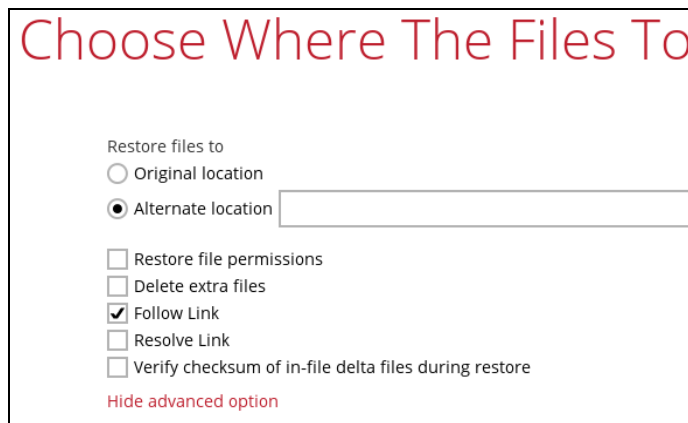


7. Click **Show advanced option** to configure other restore settings:

• **Original location**



• **Alternate location**



▶ **Restore file permissions**

By enabling this option, file permissions of the operating system files will be restored. File permission defines, for example, the right to view or change a file by the system owner/group/individual. If file

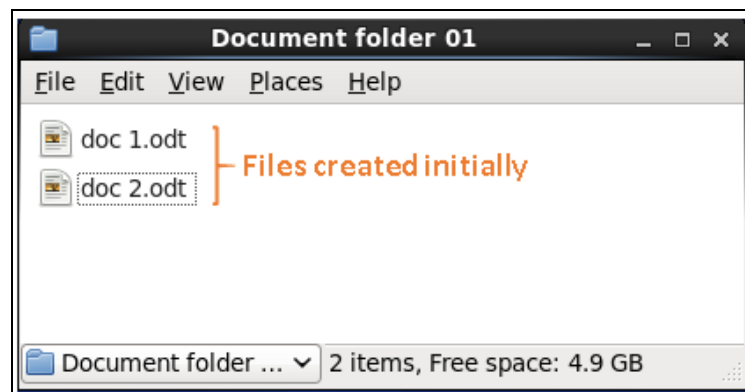
permission is not restored properly, there is a potential risk that the restored data could be viewed by group/individual who is not supposed to have the access to.

► **Delete extra files**

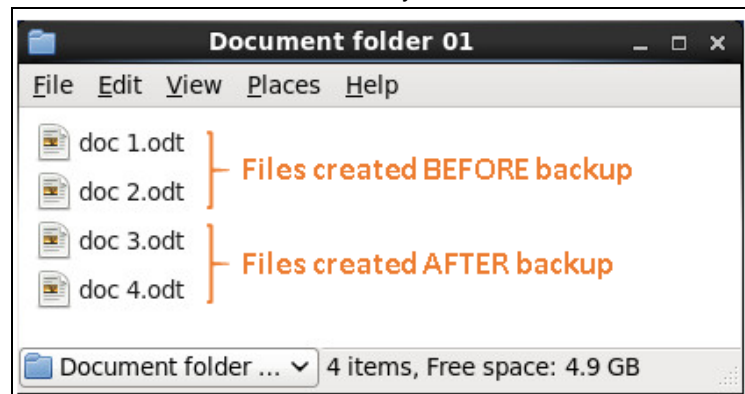
By enabling this option, the restore process will attempt to synchronize the selected restore source with the restore destination, making sure the data in the restore destination is exactly the same as the restore source. Any data created after backup will be treated as “extra files” and will be deleted from the restore source if this feature is enabled.

Example:

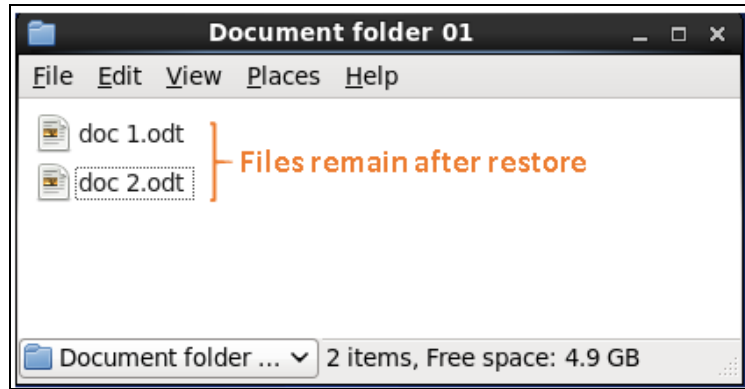
- i) Two files are created under the **Document folder 01**, namely doc 1 & doc 2.



- ii) A backup is performed for folder **Document folder 01**.
- iii) Two new files are created, namely doc 3 & doc 4.



- iv) A restore is performed for the **Document folder 01**, with **Delete extra files** option enabled.
- v) Since doc 3 & doc 4 have never been backed up, therefore, they will be deleted from **Document folder 01**, leaving only the two files that have been backed up.



WARNING

Please exercise extra caution when enabling this feature. Consider what data in the restore source has not been backed up and what impact it would cause if those data were deleted.

Prior to the data restore and synchronization, a warning message shows as the one shown below. Clicking **Yes** will delete the “extra file”. You can check the **Apply to all** option to confirm deleting all the “extra files” at a time.

► **Follow Link (Enabled by default)**

When this option is enabled, not only the symbolic link will be restored. The directories and files that the symbolic link links to will also be restored.

The table below summarizes the behaviors when a restore is performed with different settings.

Follow Link	Restore to	Behavior
Enabled	Original location	Symbolic link is restored to the original backup location. Target directories or files are also restored to the original backup location.
	Alternate location	Symbolic link is restored to the location specified. Target directories or files are also restored to the alternate location specified.
Disabled	Original	Symbolic link is restored to the

	location	original backup location. Target directories or files are NOT restored to the original backup location.
	Alternate location	Symbolic link is restored to the location specified. Target directories or files are NOT restored to the alternate location specified.

► **Resolve Link (Only applicable for restoring to Alternate Location)**

This option must be used in conjunction with the **Follow Link** option. When this option is enabled, the symbolic link, as well as the directories and files that the symbolic link links to will also be restored in the alternate location you have chosen. This means that the symbolic link will point to the alternate location instead of the original location.

The table below summarizes the behaviors when a restore is performed with this option turned on and off.

Resolve Link	Behavior
Enabled	Symbolic link is restored to the alternate location specified, with its target directories and files also restored to the same location in their relative path. Target of the link is updated to the new relative path. In other words, the link now points to the new alternate location.
Disabled	Symbolic link is restored to the alternate location specified, with its target directories and files also restored to the same location in their relative path. However, target of the link is NOT updated to the new relative path. In other words, the link or junction still points to the original location.

► **Verify checksum of in-file delta files during restore**

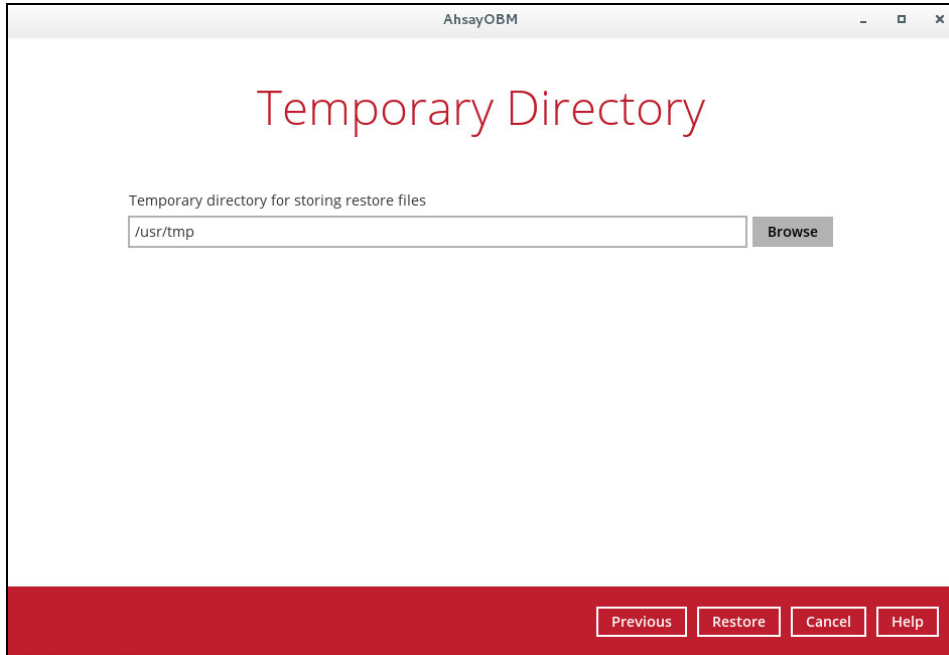
By enabling this option, the checksum of in-file delta files will be verified during the restore process. This will check the data for errors during the restore process and create a data summary of the in-file delta files which will be included in the report.


8. Once done with the restore settings, click **Next** to proceed.
9. Select the temporary directory for storing temporary files, such as delta files when they are being merged.

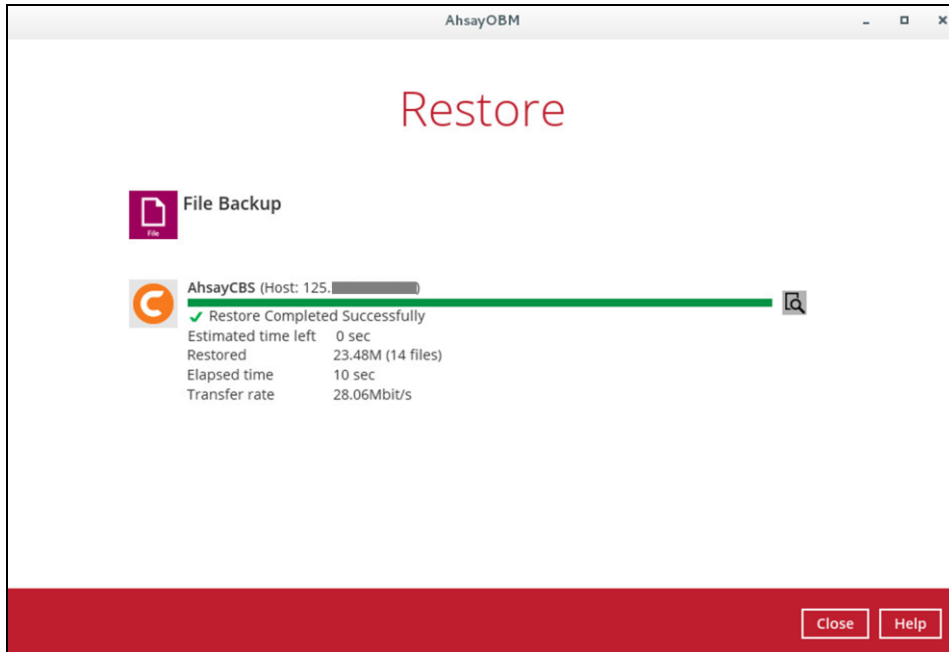
By default, the temporary files are stored under the temporary directory of the user profile directory. However, there is a chance that the same directory path does not exist in the computer you are running the AhsayOBR. In that case, you will have to click **Browse** to

define a new location for storing the temporary files. Otherwise, you will not be able to perform a restore.

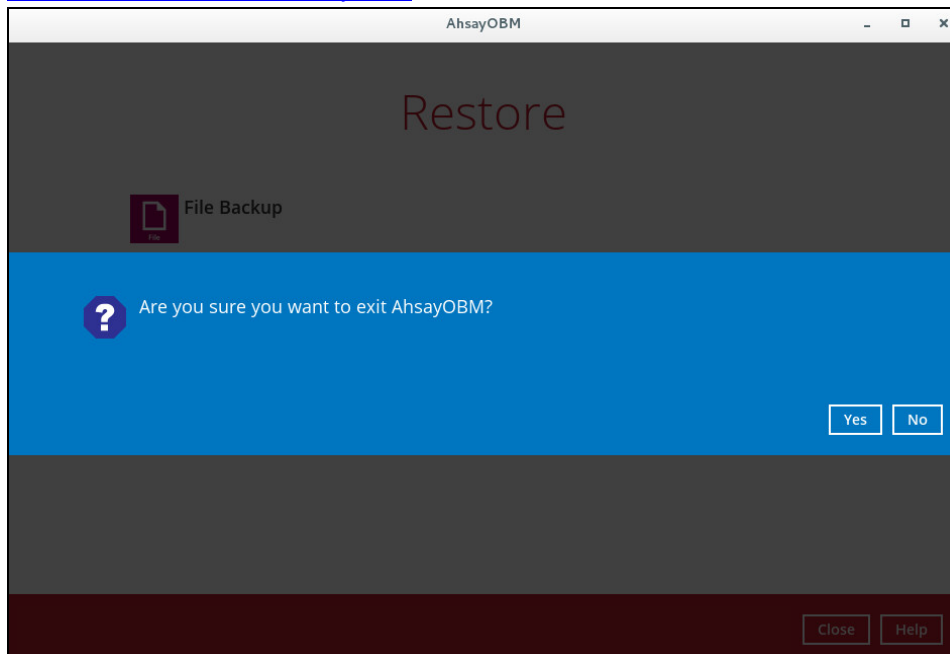
Once the temporary directory is configured, click **Restore** to start the restore



10. Restore job has completed successfully. To check for the restore log, click the  icon.



11. After restoring, click the **close** button to exit the AhsayOBR, then click **Yes**. This will completely uninstall the software. If you wish to use it again, you will have to launch it again according to the instructions in [Ch. 5.1.2 Launch AhsayOBR](#) or [Ch. 5.2.1 Download and Launch AhsayOBR](#).



8 Contacting Ahsay

8.1 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 resource such as Hardware Compatibility List, Software Compatibility List, and other product information:
<https://wiki.ahsay.com/>

8.2 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.