

# **Online Backup Manager v7**

Microsoft Exchange 2016 Mail Level  
Backup & Restore Guide

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# 1 Overview

## 1.1 Introduction

This user guide aims at providing detailed information for backing up and restoring individual mail items and public folder items stored in Microsoft Exchange Server 2016 with OBM, also known as the Mail Level backup.

Mail Level Backup must be utilized in conjunction with full Information Store Backup as Mail Level backup for Microsoft Exchange Server is not designed to fully protect an Exchange Server, but to facilitate easy backup and fast restoration of individual emails, contacts, calendars or public folder, etc.

OBM supports standalone backup option and Database Availability Group (DAG) backup option for Exchange server Mail Level backup.

From version 7.15.0.0 onwards, Exchange Server 2016 Mail Level backup and restore can be performed by installing OBM either on the Exchange server 2016 hosting the database or on a remote backup machine.

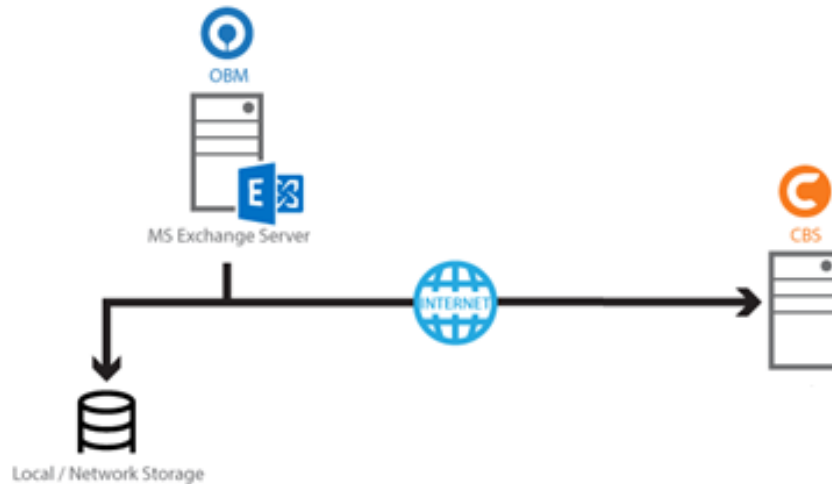
## 1.2 What is this software?

OBM provides a set of tools to protect your mailboxes and public folders on Microsoft Exchange Server 2016. This includes backup and recovery of individual emails, contacts, calendars and other mail items in your mailboxes and public folders, with snapshots / versioning, and retention policy to protect even email that you may have accidentally deleted from your Exchange 2016 mailboxes or public folders.

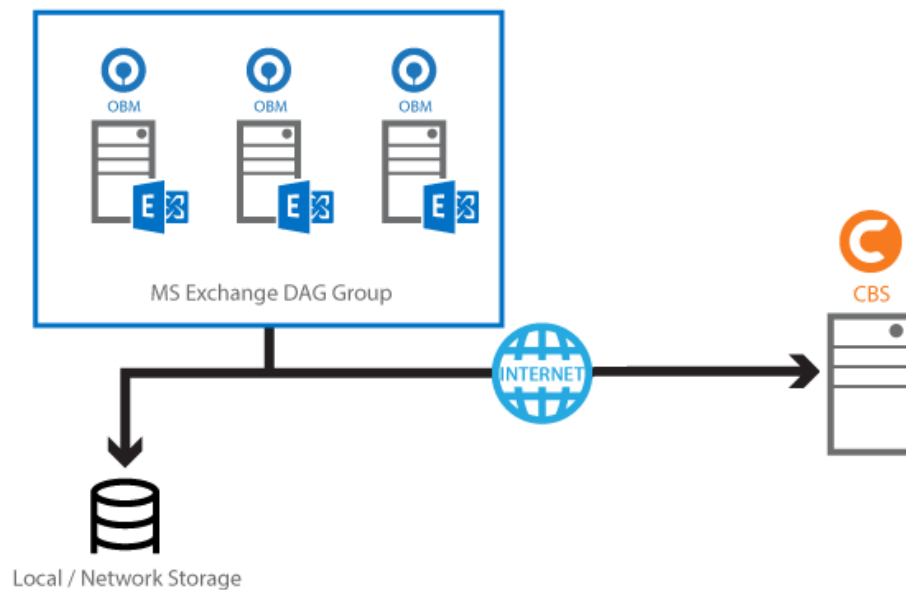
## 1.3 System Architecture

Below is the system architecture diagram illustrating the major elements involved in the backup and restore process among the Microsoft Exchange Server 2016, OBM and CBS.

1. **OBM v7.15.0.0 or above installed on Exchange Server 2016.**
  - i. **Standalone:** The latest version of OBM is installed on the Exchange server which is connected to CBS backup server through LAN or internet.

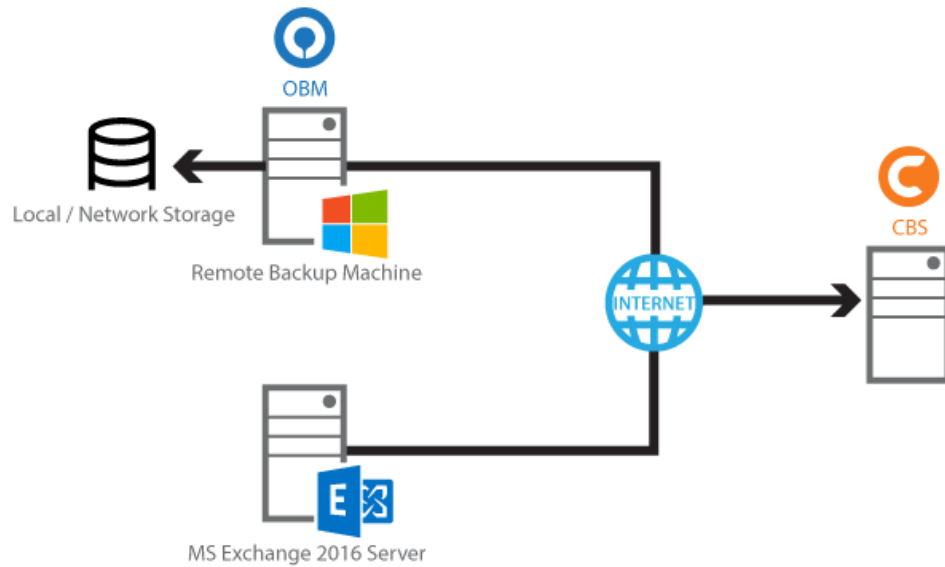


- ii. **Database Availability Group (DAG):** The latest version of OBM is installed on all the DAG members on Exchange server which is connected to CBS backup server through LAN or internet, and all the DAG members share the same backup set.

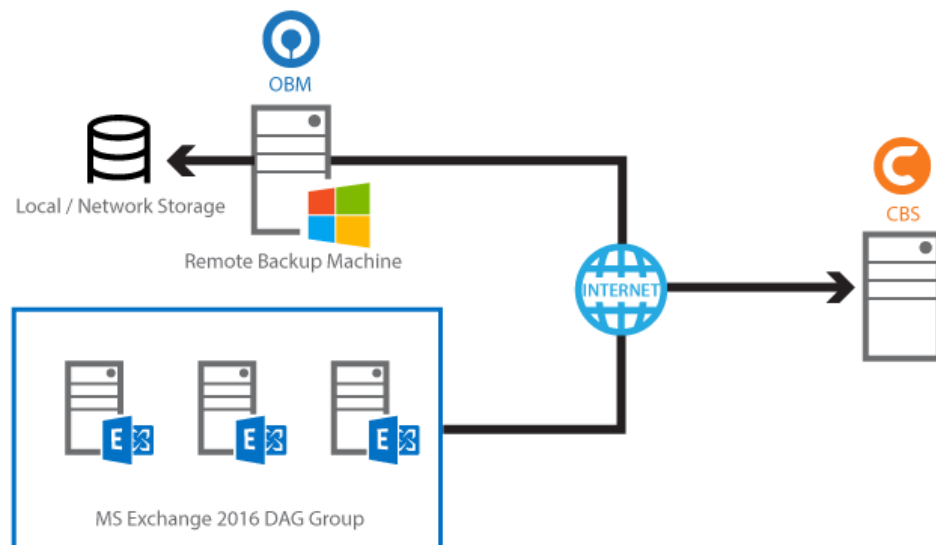


## 2. OBM v7.15.0.0 or above installed on Remote Backup Machine.

- i. **Standalone:** The latest version of OBM is installed on the remote backup machine which is connected to Exchange server and CBS backup server through LAN or internet.



- ii. **Database Availability Group (DAG):** The latest version of OBM is installed on the remote backup machine which is connected to DAG members on Exchange server and CBS backup server through LAN or internet, and all the DAG members share the same backup set.



## 1.4 About This Document

The document can be divided into 3 main parts.

### **Part 1: Preparation for Exchange 2016 Mail Level Backup & Restore**

#### **Requirements**

Requirements on OBM, Exchange Server 2016 and Windows Operating System

#### **Supported Backup Source & Limitation**

Supported backup source of Exchange Server 2016 and limitation

#### **Best Practice and Recommendation**

Items recommended to pay attention to before backup and restore

### **Part 2: Perform Mail Level Backup and Restore for Microsoft Exchange 2016 on Exchange Server**

#### **Standalone Backup Option**

Create Mail Level backup set, run Mail Level backup job and restore Mail Level backup

#### **Database Availability Group (DAG) Backup Option**

Create Mail Level backup set, run Mail Level backup job and restore Mail Level backup

### **Part 3: Perform Mail Level Backup and Restore for Microsoft Exchange 2016 on Remote Backup Machine**

#### **Standalone Backup Option**

Create Mail Level backup set, run Mail Level backup job and restore Mail Level backup

#### **Database Availability Group (DAG) Backup Option**

Create Mail Level backup set, run Mail Level backup job and restore Mail Level backup

#### **1.4.1 What should I expect from this document?**

After reading through this documentation, you can expect to have sufficient knowledge to set up your system and make a Mail Level backup of Exchange Server 2016 on OBM, as well as carry out an end-to-end backup and restore process.

## **2 Preparation for Backup and Restore**

### **2.1 Requirements**

You are strongly recommended to configure or check all the settings below to confirm all the requirements are met before you proceed with the Exchange Mail Level backup and restoration.

#### **2.1.1 OBM Installation**

OBM v7.15.0.0 or above must be installed either on the Exchange Server 2016 hosting the database or on the remote backup machine.

#### **2.1.2 Microsoft Exchange Mailbox Add-On Module**

One Microsoft Exchange Mailbox license is required for the backup of each user mailbox. No license is required for public folders.

Make sure the Microsoft Exchange Mailbox feature has been enabled as an add-on module in your OBM user account and there is sufficient Microsoft Exchange Mailbox license quota to cover the backup of your mailboxes.

Please contact your backup service provider for more details.

#### **2.1.3 OBM Licenses**

OBM licenses are calculated on a per device basis.

1. For backup of mailboxes on a standalone Microsoft Exchange 2016 Server, one OBM license is required.
2. For backup of mailboxes on a Microsoft Exchange Server 2016 DAG setup, the number of OBM licenses required is equal to the number of DAG members in the DAG. For example, if there are three DAG members then three OBM licenses are required.

Please contact your backup service provider for more details

#### **2.1.4 Backup Quota Requirement**

Make sure that your OBM user account has sufficient storage quota assigned to accommodate the storage of additional Exchange mailbox and public folder items for the new mail level backup set and retention policy.

Please contact your backup service provider for more details.

### **2.1.5 Java Heap Size**

The default Java heap size setting on OBM is 2048MB. For Exchange 2016 mail level backup, it is highly recommended to increase the Java heap size setting to be at least 4096MB to improve backup and restore performance. The actual heap size is dependent on amount of free memory available on your Exchange 2016 server.

Please see <https://portal.vsl-net.com/backup/v7/faq/5003.pdf>

### **2.1.6 Temporary Directory Folder**

Temporary Directory folder is used by OBM for storing backup set index files and any incremental or differential delta files generated during a backup job. To ensure optimal backup/restoration performance, it is recommended that the temporary directory folder is located on a local drive with sufficient free disk space.

### **2.1.7 Scheduled Backup for Exchange Server in Data Availability Group (DAG)**

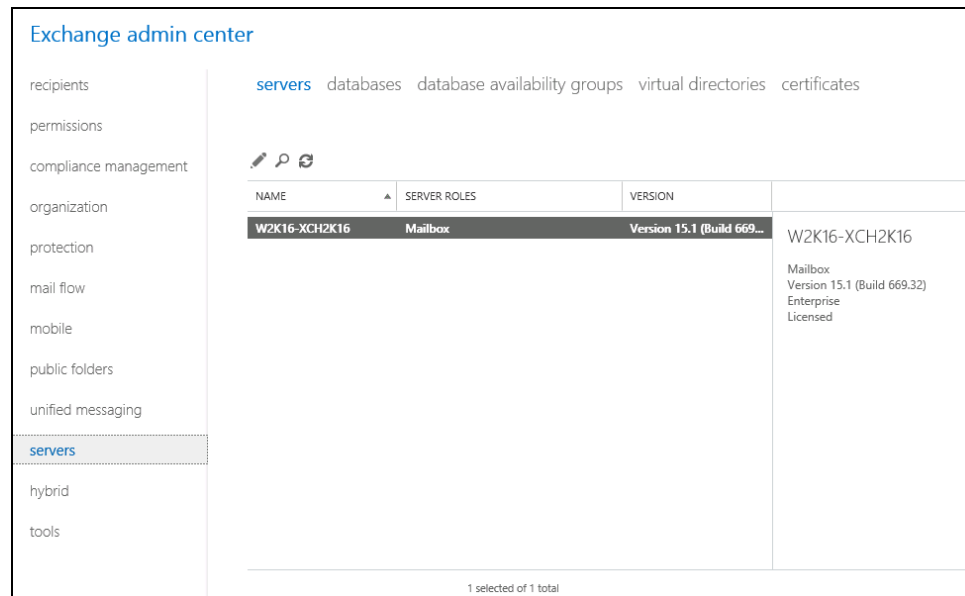
Scheduled backup is required if you choose to back up in DAG option on Exchange server as OBM on all DAG members will base on the scheduled backup time to start backup on all the individual DAG member at the same time.

1. A DAG backup cycle is considered complete only when scheduled backup on all DAG members have been carried out. An email report will be generated when a complete DAG backup cycle is taken place.
2. Please keep in mind that manual backup will only be considered as individual Mail Level backup, and therefore will not be counted as part of the DAG backup cycle.

However, for backup and restore on a remote backup machine, as the operation for single node can be done either manually or automatically, a scheduled backup is not required.

### 2.1.8 Mailbox Role

Ensure all nodes have mailbox role. This can be checked by accessing the Exchange admin center (EAC).



### 2.1.9 Operating System

1. For OBM installed on the Exchange Server 2016, the operating system must be Windows Server 2012/ 2012 R2/ 2016 or above.
2. For OBM installed on the remote backup machine, the operating system must be Windows 7/ 8/ 8.1/ 10 or Windows Server 2008/ 2008 R2/ 2012/ 2012 R2/ 2016 or above.

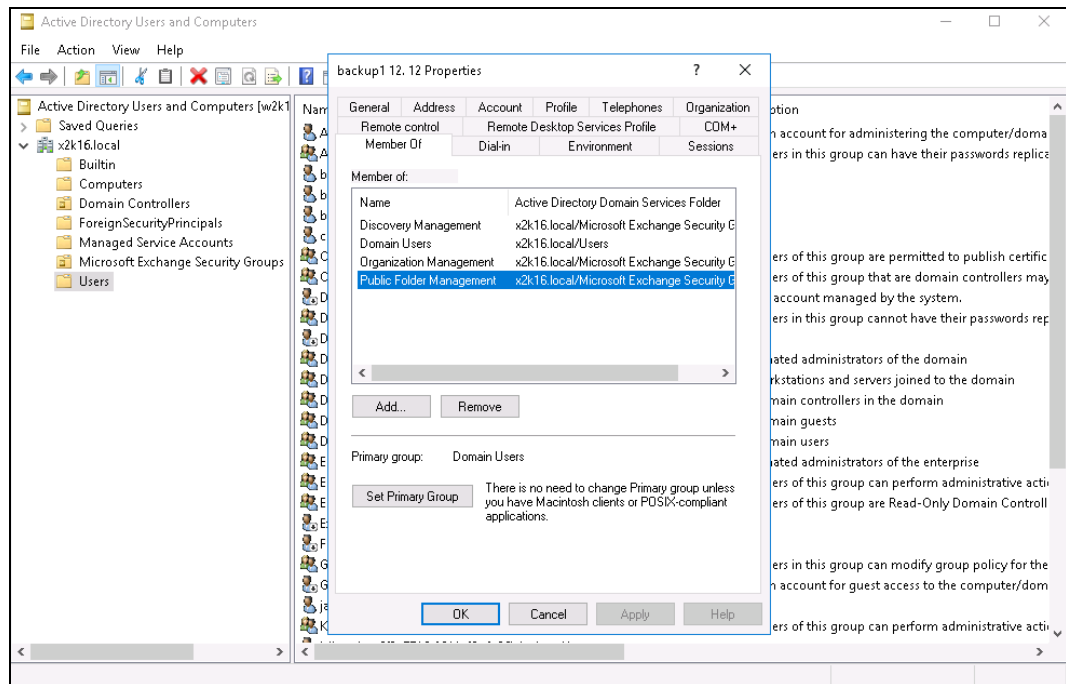
### 2.1.10 Supported Exchange Server 2016 Version

MS Exchange Server 2016 Cumulative Update 4 (CU4) or above is supported.

### 2.1.11 Windows User Account Permissions

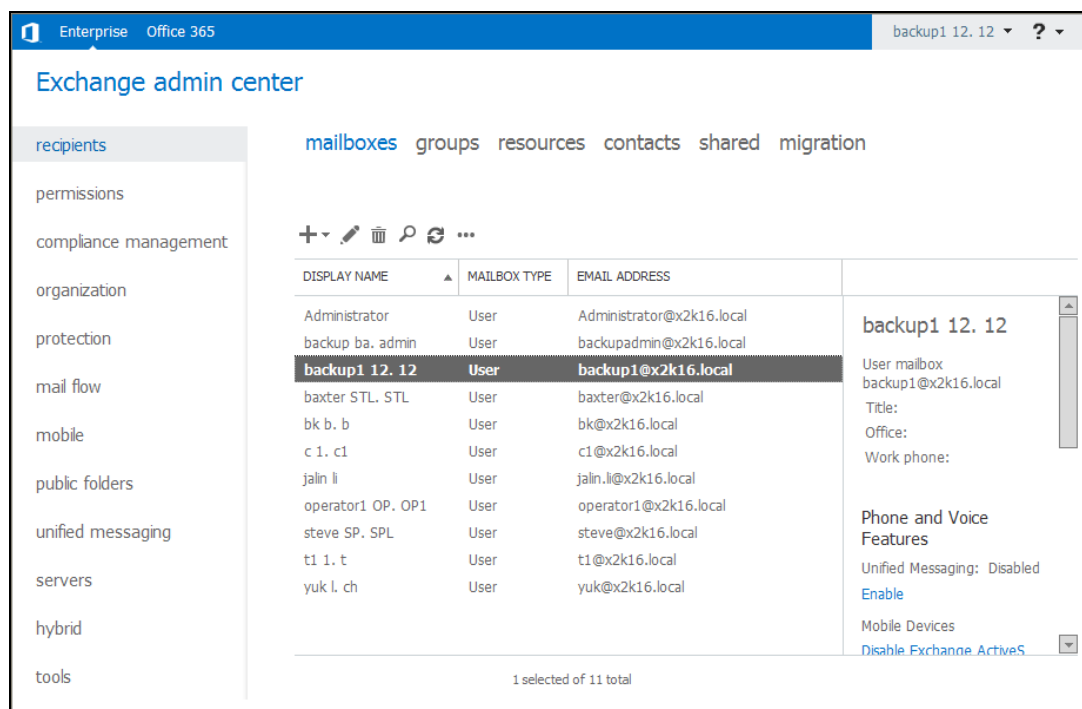
The Windows user account used for the backup must be a member of the following security groups.

- ▶ Discovery Management (including ApplicationImpersonation and Mailbox Search)
- ▶ Organization Management
- ▶ Public Folder Management



### 2.1.12 Enabling Mailbox

The Windows user account must have an Exchange Server mailbox. Refer to the URL below for more information: <http://support.microsoft.com/kb/275636/en-us>.

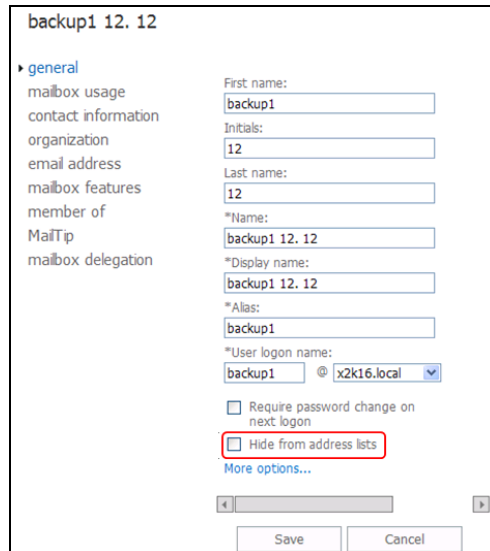


Refer to the following article from Microsoft for more details on how to check if an account is mailbox enabled and how to enable it:

[https://technet.microsoft.com/en-us/library/jj991919\(v=exchg.160\).aspx](https://technet.microsoft.com/en-us/library/jj991919(v=exchg.160).aspx)

### 2.1.13 Backup Source Requirement

Ensure that the “**Hide from address lists**” option is unchecked for all mailboxes to be selected for backup. Mailbox hidden from the address list will not be shown in the backup source selection menu.



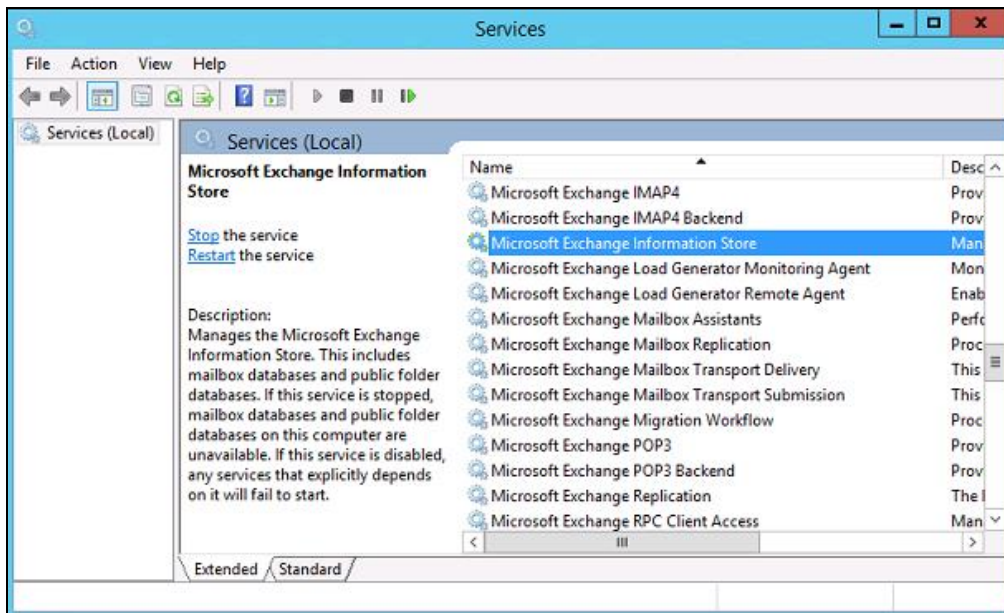
### 2.1.14 Port Configuration

As Exchange 2016 mail level backup and restore is implemented using Microsoft EWS API (Exchange Web Services), which enables OBM to access mailbox items such as email message, meetings, notes, calendar, contact, etc, without any additional installation or complicated setup required on the Exchange 2016 Server or remote backup machine, only **port 443** must be configured to allow communication between OBM and Exchange server.

### 2.1.15 Exchange related Windows Services

Ensure all MS Exchange related services have been started, particularly the **MS Exchange Information Store**.

To verify this setting, launch the **Services** menu by clicking **Start** then typing “Services” in the search box. All Exchange related services should be started by default, in case if it is not, turn it on by right clicking the item and then select **Start**.

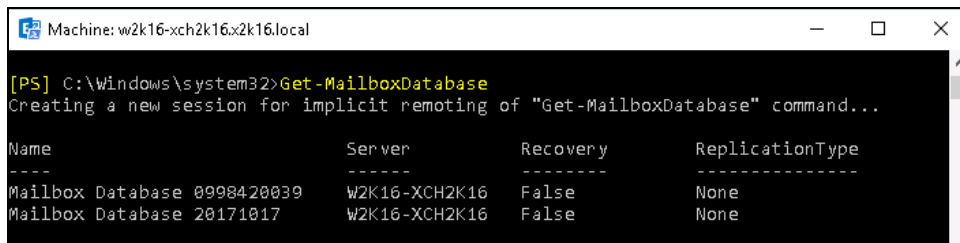


### 2.1.16 MS Exchange Databases

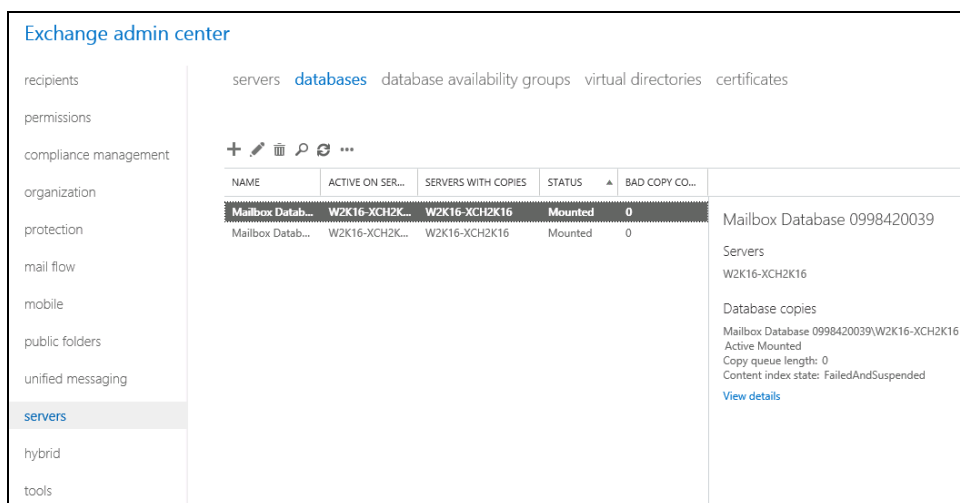
Ensure the MS Exchange Mailbox and Public Folder databases are mounted. This can be verified by Exchange Management Shell or Exchange Admin Center (EAC).

- ▶ Type the following command in the Exchange Management Shell.

```
Get-MailboxDatabase
```



- ▶ Exchange Admin Center (EAC)

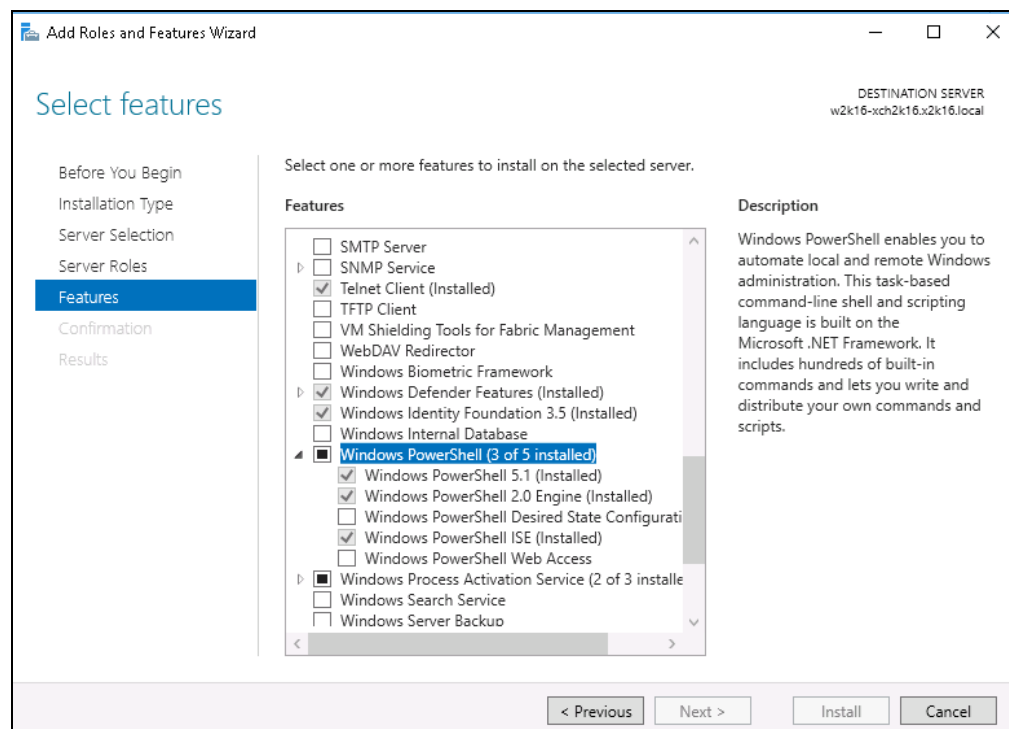


### 2.1.17 Windows PowerShell 5.1 Engine

Ensure that Windows PowerShell 5.1 Engine is installed.

To install the feature:

1. Navigate to **Server Manager > Manage**, then select **Add Roles and Features**.
2. On the **Select installation type** screen, select **Role-based or feature-based** installation.
3. Select the target server.
4. On the **Select features** screen, go to the **Features** option, check the box next to **Windows PowerShell 5.1 Engine**.

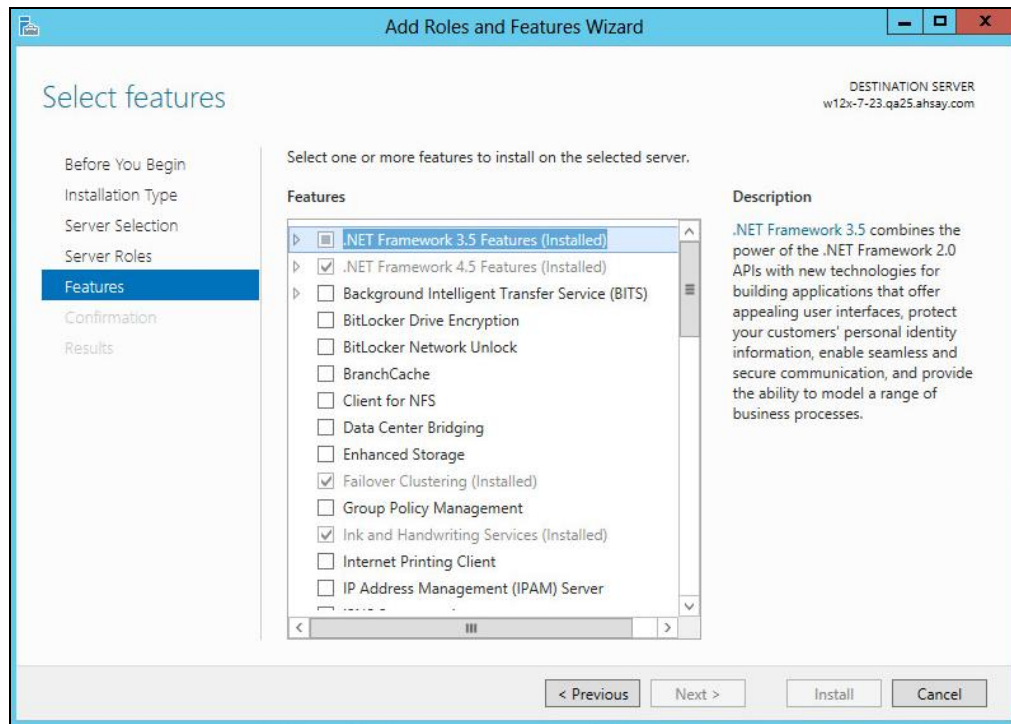


### 2.1.18 .Net Framework 4.6.2 Features

Ensure **.Net Framework 4.6.2 Features** is installed. Please refer to the following URL for detailed information:

[https://technet.microsoft.com/en-us/library/aa996719\(v=exchg.160\).aspx](https://technet.microsoft.com/en-us/library/aa996719(v=exchg.160).aspx)

This feature can be enabled by accessing **Server Manager > Dashboard > Manage > Add Roles and Features Wizard > Feature Page.**



## 2.2 Supported Source

Below is the supported mailbox type of Exchange Server 2016 Mail Level backup.

| Mailbox Level         |            |                   |            |
|-----------------------|------------|-------------------|------------|
| Item                  | Supported? | Item              | Supported? |
| User mailbox          | ✓          | Room Mailbox      | ✓          |
| Public Folder         | ✓          | Equipment Mailbox | ✓          |
| Public Folder Mailbox | ✓          | Shared Mailbox    | ✓          |

Below are the items that you can backup or restore from an Exchange Server 2016 Mail Level backup set.

| Folder Level  |            |            |            |
|---------------|------------|------------|------------|
| Item          | Supported? | Item       | Supported? |
| Inbox         | ✓          | RSS Feeds  | ✓          |
| Drafts        | ✓          | Junk Email | ✓          |
| Sent Items    | ✓          | Tasks      | ✓          |
| Deleted Items | ✓          | Calendar   | ✓          |
| Archive       | ✓          | Contacts   | ✓          |
| Notes         | ✓          |            |            |

## 2.3 Limitation

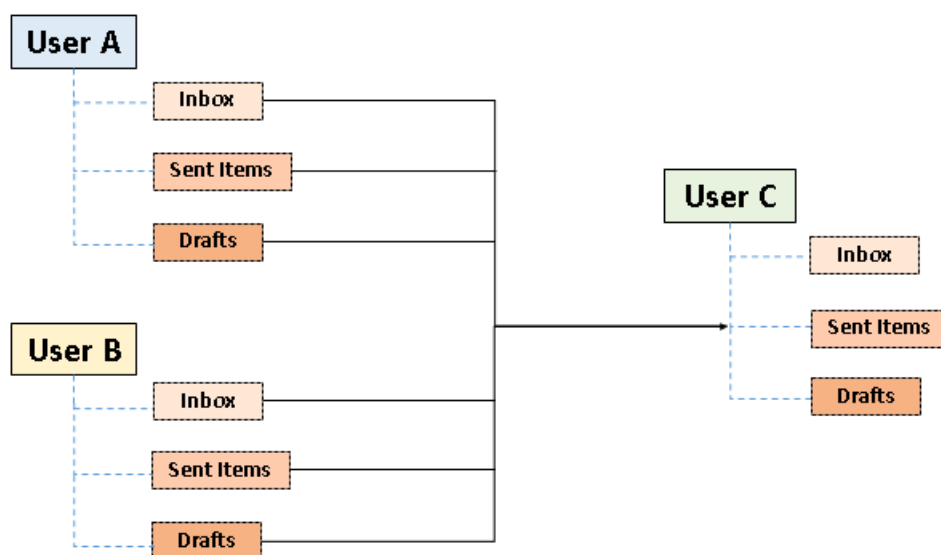
For backup and restoration of Exchange 2016 Mail Level backup set, there is some limitation:

1. If you are trying to restore item(s) from one mailbox to an alternate location mailbox, OBM will restore the item(s) to their respective destination folder(s) with the same name of the original folder(s).

**Example:** Item from “Inbox” folder of Mailbox-A will be restored to the “Inbox” folder of the alternate location Mailbox-B; Item from “Drafts” folder of Mailbox-A will be restored to the “Drafts” folder of the alternate location Mailbox-B.

2. If you are trying to restore item(s) from several mailboxes to an alternate location mailbox, OBM will restore the item(s) to their respective destination folder(s) in alternate location mailbox with the same name of the original

folder(s).



**Example:** Item from “Inbox” folder of Mailbox-A and Mailbox-B will be restored to the “Inbox” folder of the alternate location Mailbox-C.

- Restore of mailbox items or public folder items is only supported if the according mailbox or public folder exists.
- Only Alternate Location is supported for restoring mailbox items to another domain.
- Restore of mailbox item(s) in public folder to an alternate location mailbox is not supported.

**Example:** Restore of mailbox item(s) in public folder from Mailbox-A to alternate location Mailbox-B is not supported.

- If you are trying to restore the mailbox item to a destination mailbox which has a different language setting than the original mailbox, OBM will restore mailbox item(s) to their respective destination folder based on the translation listed below.

For folders such as ‘Calendar’ or ‘Notes’, a new folder ‘Calendar’ or ‘Notes’ will be created.

| Backup source (English) | Action | Destination mailbox with Chinese as default language settings |
|-------------------------|--------|---------------------------------------------------------------|
| Inbox                   | Merge  | 收件箱                                                           |
| Outbox                  | Merge  | 寄件匣                                                           |
| Sent Items              | Merge  | 寄件備份                                                          |

|               |                   |          |
|---------------|-------------------|----------|
| Deleted Items | Merge             | 刪除的郵件    |
| Drafts        | Merge             | 草稿       |
| Junk E-Mail   | Merge             | 垃圾電郵     |
| Calendar      | Create new folder | Calendar |
| Notes         | Create new folder | Notes    |

## 2.4 Best Practice and Recommendation

The following are some best practices or recommendations we strongly recommend you follow before you start any Exchange Server 2016 Mail Level backup and restore.

- ① Mail Level Backup must be utilized in conjunction with Database Level Backup to fully protect an Exchange Server.
- ① Active Directory server should be protected by regular full Window System Backup at least once every two weeks.
- ① For OBM installed on Exchange Server, enable scheduled backup jobs when system activity is low to achieve the best possible performance.
- ① The remote backup machine should be on the same LAN as the MS Exchange server for optimal backup and restore performance.
- ① To provide maximum data protection and flexible restore options, it is recommended to configure at least one local destination for fast recovery
- ① Perform test restores periodically to ensure your backup is set up and performed properly. Performing recovery test can also help identify potential issues or gaps in your recovery plan. It's important that you do not try to make the test easier, as the objective of a successful test is not to demonstrate that everything is flawless. There might be flaws identified in the plan throughout the test and it is important to identify those flaws.
- ① **Distributed Backup Solution:** For backup of multiple or mass backup sets, to achieve better backup performance and to minimize any unnecessary loading on the Exchange server, please consider deploying OBM on remote backup machines as distributed backup solution instead of on the MS Exchange server.
- ① For backup of a large amount mailboxes, it is recommended to divide all mailboxes into multiple backup sets. By default, the MS Exchange 2016 mail level backup module can back up a maximum of 4 mailboxes concurrently (4 concurrent backup threads), while backing up a maximum of 4 mail items

concurrently per mailbox (4 concurrent backup threads). Therefore, each backup set supports a maximum of  $4 \times 4 = 16$  backup threads at a time. By splitting up all mailboxes into separate backup sets, the more backup sets, the faster the backup process can achieve.

**Example-1:** There are 100 mailboxes that need to be backup, you can divide 20 mailboxes into one backup set.

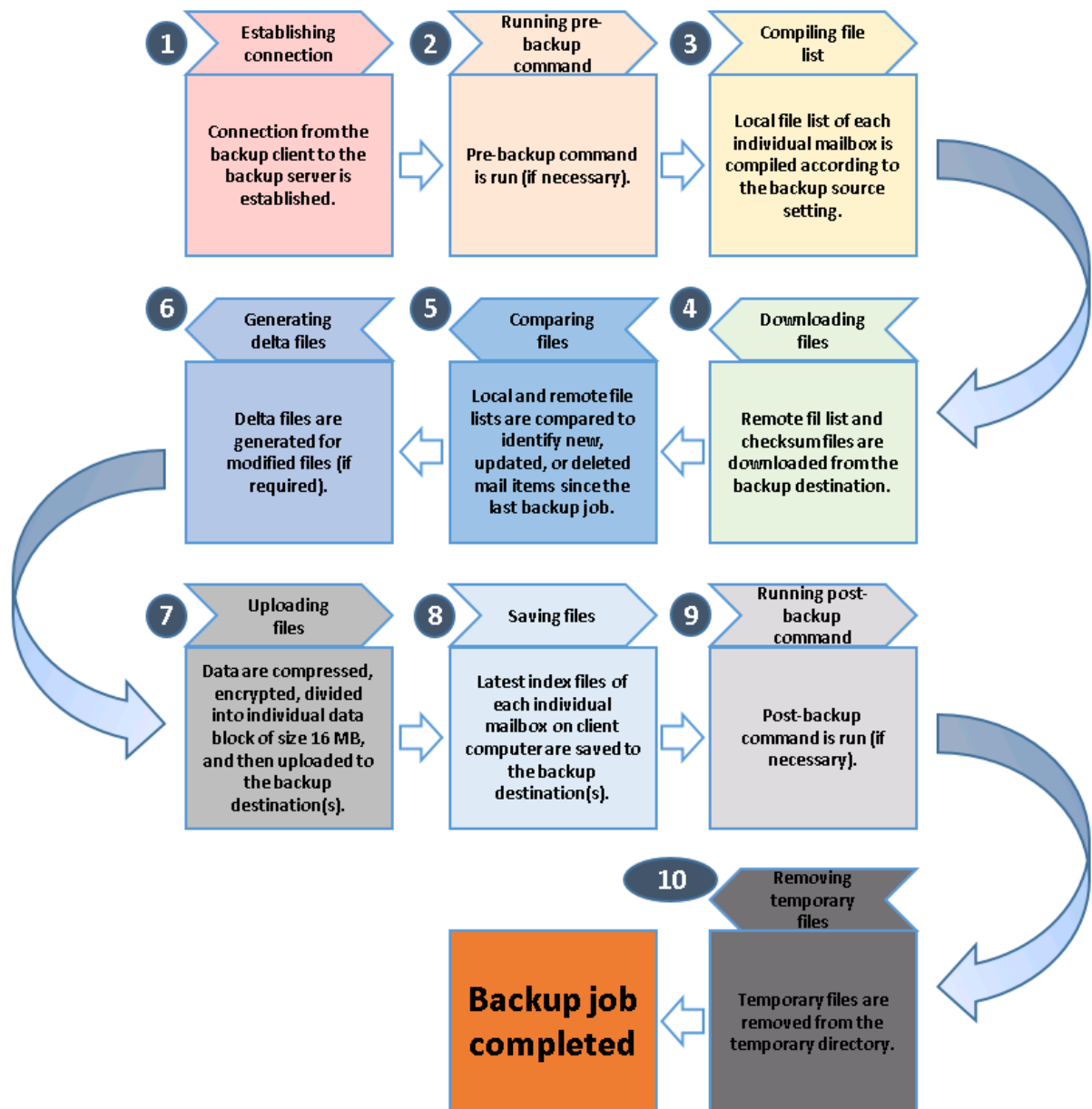
| Backup Set Name                                                                                       | Mailbox Number |
|-------------------------------------------------------------------------------------------------------|----------------|
| Backup-Set-1                                                                                          | No.1 -- 20     |
| Backup-Set-2                                                                                          | No.21 -- 40    |
| Backup-Set-3                                                                                          | No.41 -- 60    |
| Backup-Set-4                                                                                          | No.61 -- 80    |
| Backup-Set-5                                                                                          | No.81 -- 100   |
| <b>Note:</b> If there are new mailboxes added, you can create a new backup set for the new mailboxes. |                |

**Example-2:** There are 100 mailboxes that need to be backup, you can divide mailboxes into backup sets in alphabetic order.

| Backup Set Name                                                                                                                                  | Mailbox Name Start with |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Backup-Set-1                                                                                                                                     | A -- E                  |
| Backup-Set-2                                                                                                                                     | F -- J                  |
| Backup-Set-3                                                                                                                                     | K -- O                  |
| Backup-Set-4                                                                                                                                     | P -- T                  |
| Backup-Set-5                                                                                                                                     | U -- Z                  |
| <b>Note:</b> If there are new mailboxes added, you can add the new mailboxes into the original backup set by the corresponding alphabetic order. |                         |

### 3 Overview of MS Exchange Mail Level Backup Process

The following steps are performed during an Exchange Mail Level backup job:

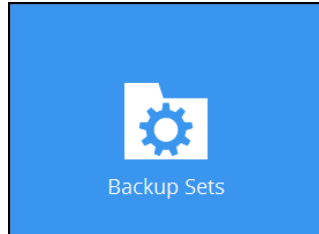


## 4 On Exchange Server

### 4.1 Standalone Backup Option

#### 4.1.1 Create Mail Level Backup Set

1. Click the **Backup Sets** icon on the main interface of OBM.



2. Create a new backup set by clicking the "+" icon next to **Add new backup set**.
3. Select the Backup set type as **MS Exchange Mail Level Backup**. The system will automatically detect and select the Exchange Server version, make sure the version selected is correct.
  - ☐ Name your new backup set.
  - ☐ Enter the hostname of Exchange server 2016
  - ☐ Enter the username and password of the Windows user account used for backup.
  - ☐ Check the "Access the Internet through proxy" if required. Then click **Next** to proceed.

## Create Backup Set

Name

Backup set type  
☒ MS Exchange Mail Level Backup

Version

Host

Username

Password

☐ Access the Internet through proxy

4. In the **Backup Source** menu, select the mailboxes or public folders for backup. You can click to expand the mailbox or public folder to select which mail folder to back up. You can also click **Show mails** to select individual mail to back up. Click **Next** to proceed when you are done.

## Backup Source

| From                      | Subject                | Received         | Size |
|---------------------------|------------------------|------------------|------|
| Administrator@x2k16.local | Re: Microsoft Excha... | 10/19/2017 16:33 | 14k  |
| Administrator@x2k16.local | Screenshot             | 10/19/2017 16:42 | 1M   |
| yuk@x2k16.local           | Re: Microsoft Excha... | 10/19/2017 17:01 | 15k  |

☒ Show mails
 Items per page: 
Page:

5.

6. In the Schedule menu, you can configure a backup schedule for backup job to run automatically at your specified time interval. Click **Add** to add a new schedule, then click **Next** to proceed when you are done.

The screenshot shows the 'Schedule' configuration window. At the top, the title 'Schedule' is displayed in blue. Below the title, there is a section 'Run scheduled backup for this backup set' with a toggle switch labeled 'On' that is currently turned on. Underneath, the 'Existing schedules' section lists a single schedule: 'Backup Schedule' with a calendar icon and the text 'Daily (Everyday at 22:00)'. Below this list is a grey 'Add' button. At the bottom of the window, there is a blue bar containing four buttons: 'Previous', 'Next', 'Cancel', and 'Help'.

**Note:** By default, a daily backup scheduled for 22:00 is created automatically.

7. In the Destination menu, select a backup destination where the backup mail will be stored. Click the “+” icon next to **Add new storage destination / destination pool**.

The screenshot shows the 'Destination' configuration window. At the top, the title 'Destination' is displayed in blue. Below the title, there is a section 'Backup mode' with a dropdown menu currently set to 'Sequential'. Underneath, the 'Existing storage destinations' section shows a grey square with a plus sign (+) next to the text 'Add new storage destination / destination pool'. Below this text are two small, faint upward and downward arrow icons. At the bottom of the window, there is a blue bar containing four buttons: 'Previous', 'Next', 'Cancel', and 'Help'.

8. Select the destination type and destination storage, then click **OK** to proceed.

The screenshot shows a window titled "New Storage Destination / Destination Pool". It contains the following fields and options:

- Name:** A text input field containing "CBS".
- Type:** Two radio button options: "Single storage destination" (selected) and "Destination pool".
- Destination storage:** A dropdown menu showing "CBS" with a small icon to its left.

At the bottom right, there are three buttons: "OK", "Cancel", and "Help".

9. Click **Next** on the Destination menu page to proceed.

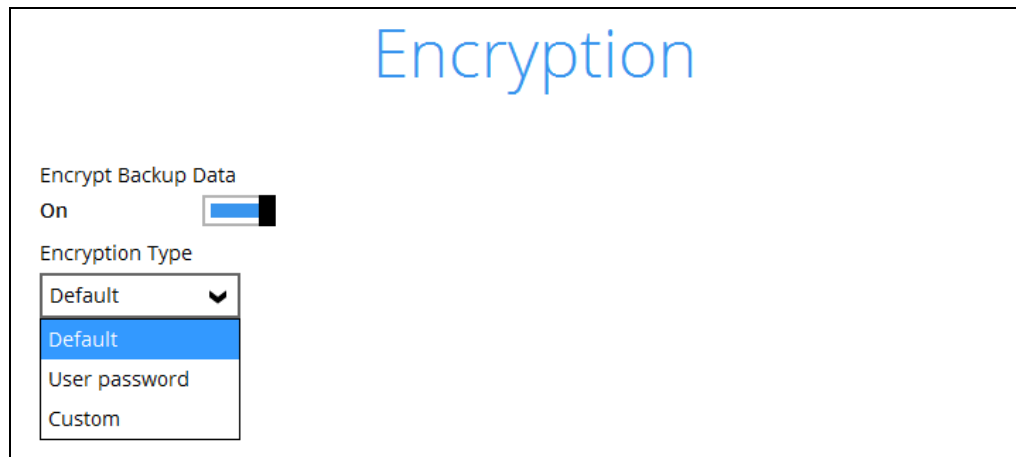
The screenshot shows a window titled "Destination". It contains the following fields and options:

- Backup mode:** A dropdown menu showing "Sequential".
- Existing storage destinations:** A list showing one entry: "CBS" with a host address of "10.3.1.8:443". Below the list is an "Add" button and two small arrow icons (up and down).

At the bottom right, there are four buttons: "Previous", "Next", "Cancel", and "Help".

10. In the Encryption window, the default **Encrypt Backup Data** option is enabled with an encryption key preset by the system which provides the most secure

protection.



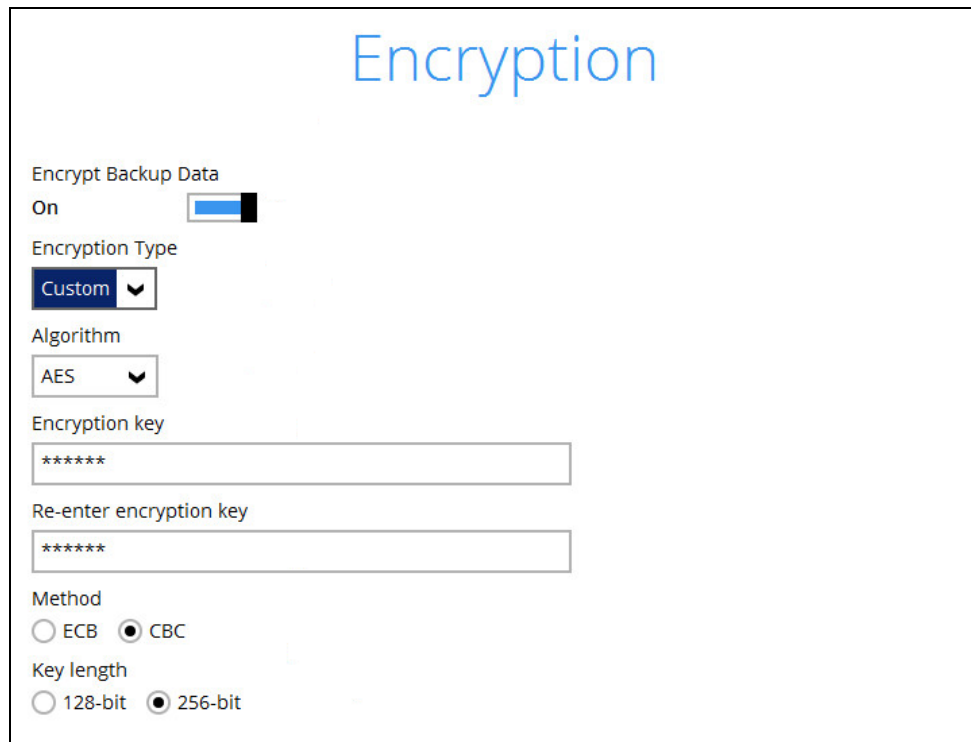
Encryption

Encrypt Backup Data  
On ☐

Encryption Type  
Default ▼  
Default  
User password  
Custom

11. You can choose from one of the following three Encryption Type options:

- **Default** – an encryption key with 44 alpha numeric characters will be randomly generated by the system
- **User password** – the encryption key will be the same as the login password of your OBM at the time when this backup set is created. Please be reminded that if you change the OBM login password later, the encryption keys of the backup sets previously created with this encryption type will remain unchanged.
- **Custom** – you can customize your encryption key, where you can set your own algorithm, encryption key, method and key length.



Encryption

Encrypt Backup Data  
On ☐

Encryption Type  
Custom ▼

Algorithm  
AES ▼

Encryption key  
\*\*\*\*\*

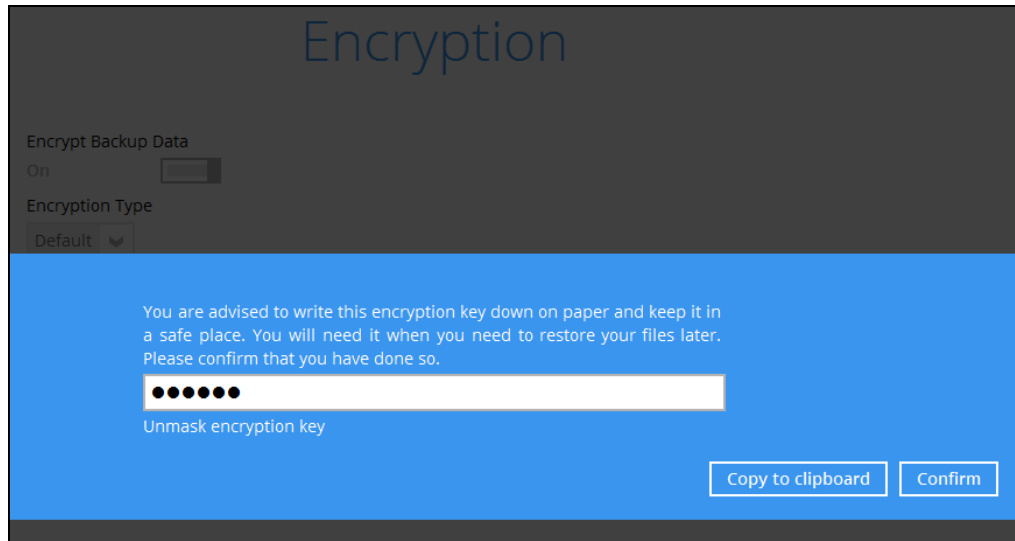
Re-enter encryption key  
\*\*\*\*\*

Method  
☐ ECB ☒ CBC

Key length  
☐ 128-bit ☒ 256-bit

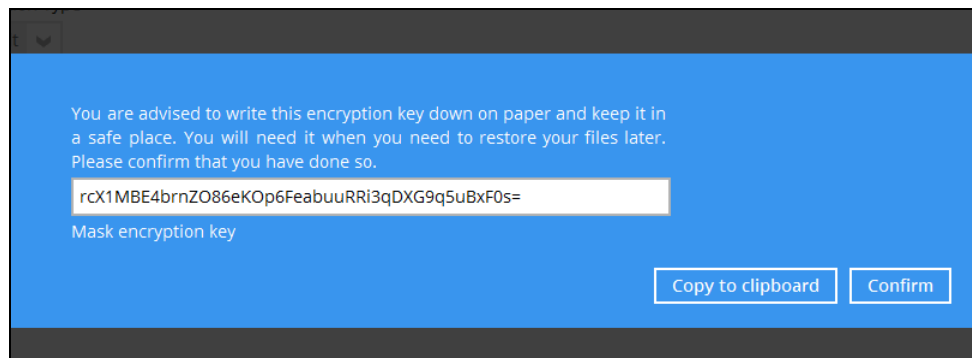
Click **Next** when you are done.

If you have enabled the Encryption Key feature in the previous step, the following pop-up window shows, no matter which encryption type you have selected.



The pop-up window has the following three options to choose from:

- **Unmask encryption key** – The encryption key is masked by default. Click this option to show the encryption key.



- **Copy to clipboard** – Click to copy the encryption key, then you can paste it in another location of your choice.
- **Confirm** – Click to exit this pop-up window and proceed to the next step

12. Enter the Windows login credentials for user authentication. Click **Next** to proceed.

## Windows User Authentication

Domain Name/ Host Name

User name

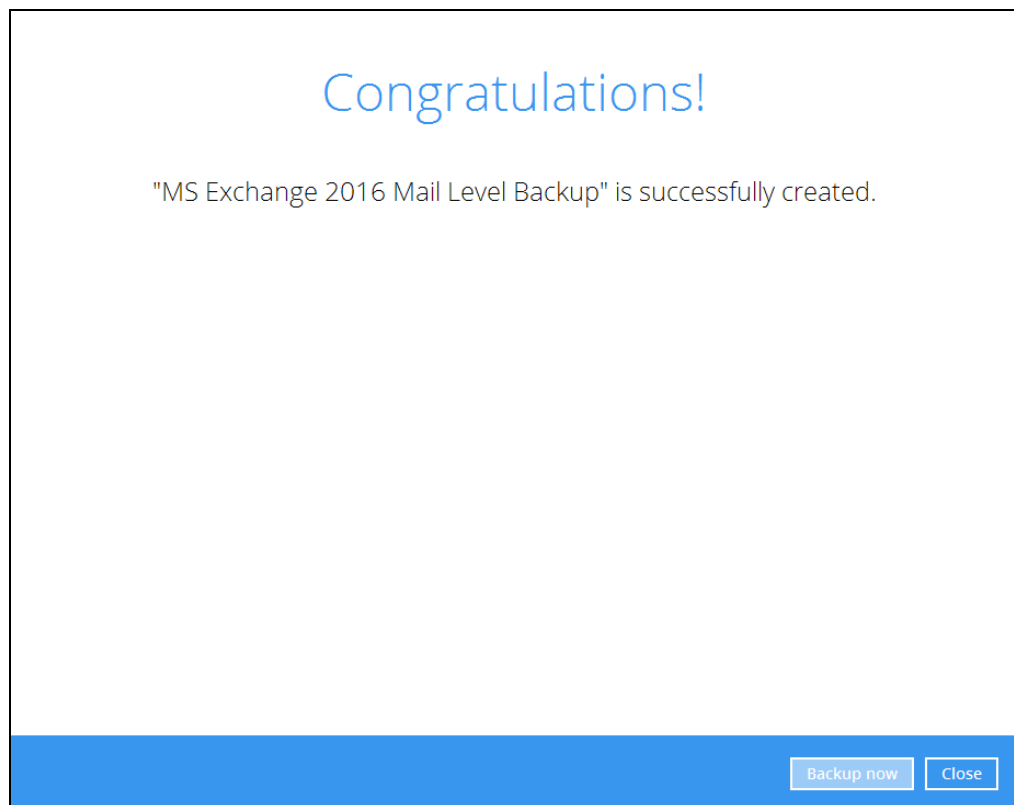
Password

[Previous](#) [Next](#) [Cancel](#) [Help](#)

### Note

The Windows User Authentication interface will show only if scheduled backup is enabled and set successfully.

13. The following screen shows when the new backup set is created successfully.



14. Click **Backup now** to start a backup immediately, or you can run a backup job later by following the instructions in [Run Mail Level Backup Job](#)

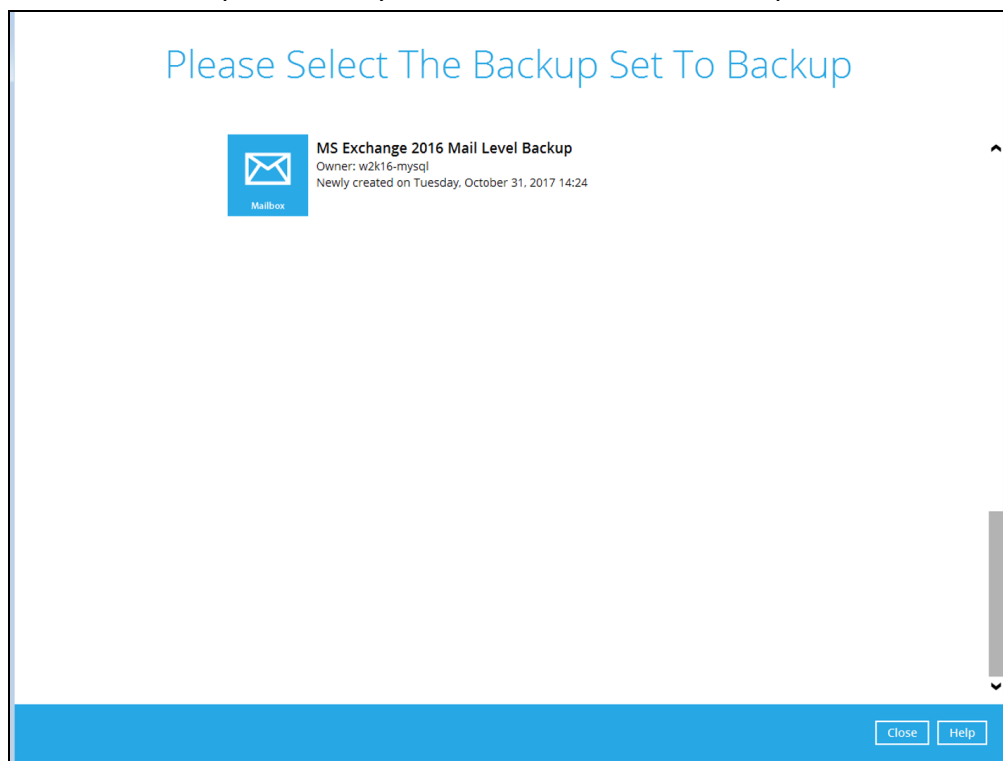
#### 4.1.2 Run Mail Level Backup Job

Below are the steps of backup process.

1. Log in to OBM.
2. Click the Backup icon on the main interface of OBM.



3. Select the backup set which you would like to start a backup for.



4. If you would like to modify the In-File Delta type, Destinations and Retention Policy settings, click **Show advanced option**.

## Choose Your Backup Options

 **MS Exchange 2016 Mail Level Backup**

Backup set type  
Microsoft Exchange Mailbox  
[Show advanced option](#)

Previous

Backup

Cancel

Help

## Choose Your Backup Options

### MS Exchange 2016 Mail Level Backup

Backup set type  
Microsoft Exchange Mailbox

In-File Delta type

- ☐ Full  
☐ Differential  
☒ Incremental

Destinations

☒  CBS (Host: 10.16.10.12:443)

Retention Policy

☐ Run Retention Policy after backup

[Hide advanced option](#)

Previous

Backup

Cancel

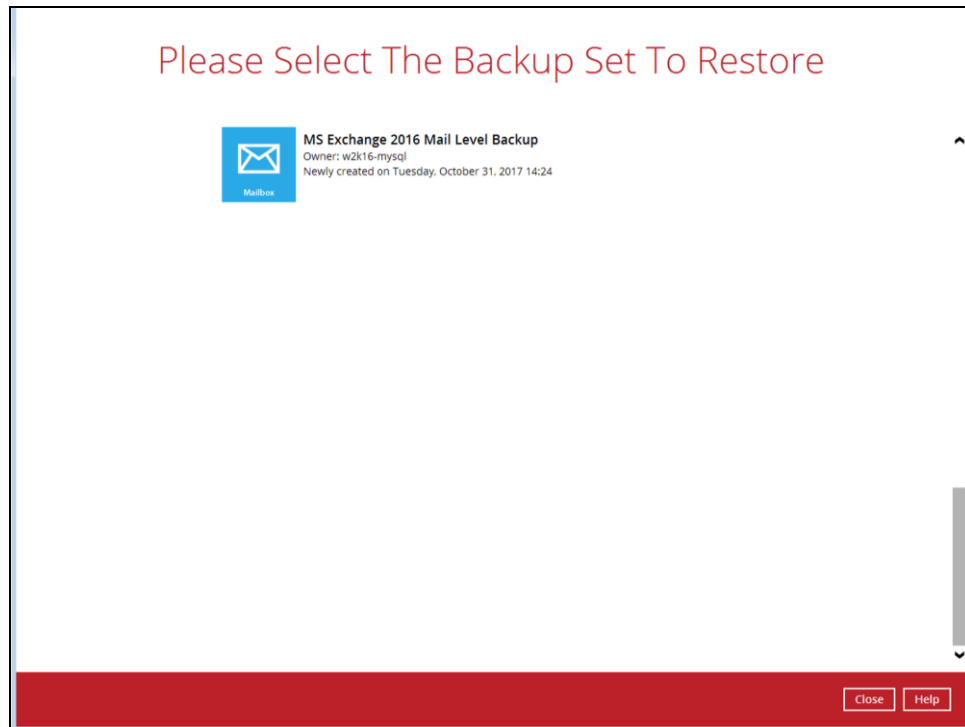
Help

5. Click **Backup** to start the backup.

### 4.1.3 Restore Mail Level Backup

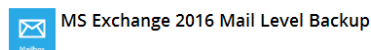
Below are the steps of restore process.

1. In the OBM main interface, click the **Restore** icon.
2. Select the backup set that you would like to restore mail from.



3. Select the backup destination that contains the mail(s) that you would like to restore.

Select The Destination From Which To Restor...



- Click to expand the menu tree to select which mailbox to restore. You can also select mail item(s) from a specific backup job or all mail items that you have backed up to restore. Click **Next** to proceed.

## Select Your Mail Objects To Be Restored

Select what to restore

Choose from files as of job 10/25/2017 Latest

Choose from files as of job

Choose from ALL files

|                          | From             | Subject                 | Received         | Size |
|--------------------------|------------------|-------------------------|------------------|------|
| <input type="checkbox"/> | jalin.ji@x2k1... | Microsoft Exchange ...  | 10/19/2017 16:32 | 14k  |
| <input type="checkbox"/> | yuk@x2k16.l...   | Re: Microsoft Excha...  | 10/19/2017 17:01 | 17k  |
| <input type="checkbox"/> | t1@x2k16.loc...  | Re: Relay this messa... | 10/19/2017 17:22 | 1M   |
| <input type="checkbox"/> | yuk@x2k16.l...   | Re: Relay this messa... | 10/20/2017 11:54 | 10M  |
| <input type="checkbox"/> | t1@x2k16.loc...  | Help with Exchange ...  | 10/20/2017 17:19 | 11k  |

Items per page 50 Page 1 / 1

Previous Next Cancel Help

- Select to restore the mail to their Original mailbox, or to an Alternate mailbox.

### ☒ Restore to Original Mailbox

Select the **Original location** option, then press **Next** to proceed.

## Choose Where The Mail Objects To Be Restor...

Restore mail objects to

☒ Original location

☐ Alternate location Administrator@x2k16.local

Previous Next Cancel Help

### ☐ Restore to Alternate Mailbox

You can choose to restore mailbox item(s) to another mailbox in the same Exchange server. Select the **Alternate location** option and the desired mailbox destination, then press **Next** to proceed.

In addition, you can also restore mailbox item(s) to a different Exchange server of the same version. In this case, the restoration should be triggered by the OBM on the destination Exchange server.

### Choose Where The Mail Objects To Be Restor...

Restore mail objects to

☐ Original location

☒ Alternate location

Administrator@x2k16.local

Administrator@x2k16.local

backup1@x2k16.local

backupadmin@x2k16.local

baxter@x2k16.local

bk@x2k16.local

c1@x2k16.local

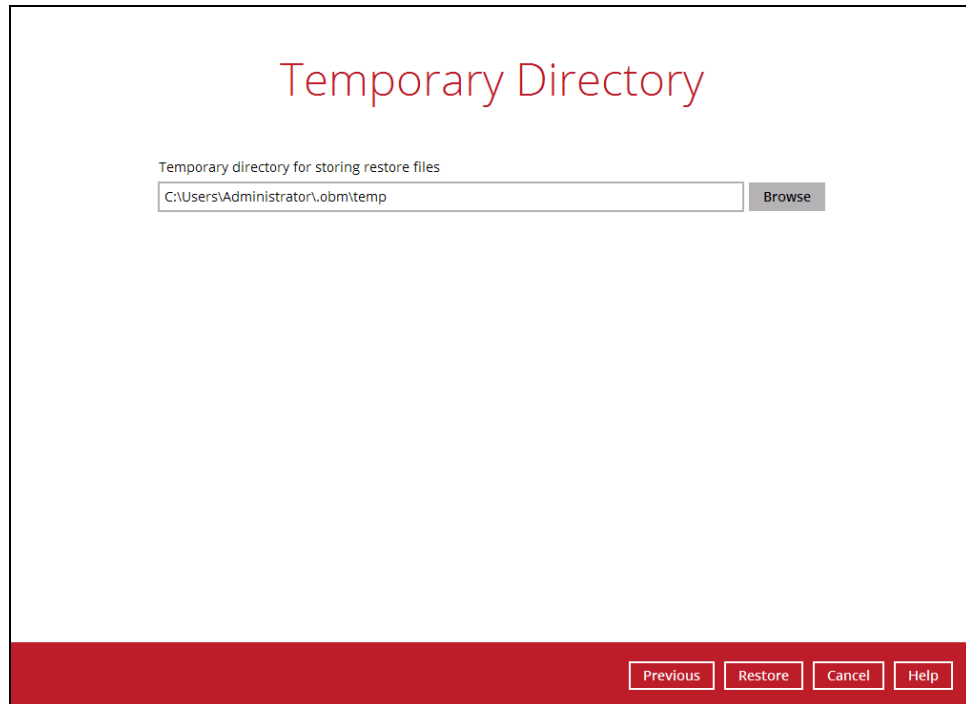
jalin.li@x2k16.local

operator1@x2k16.local

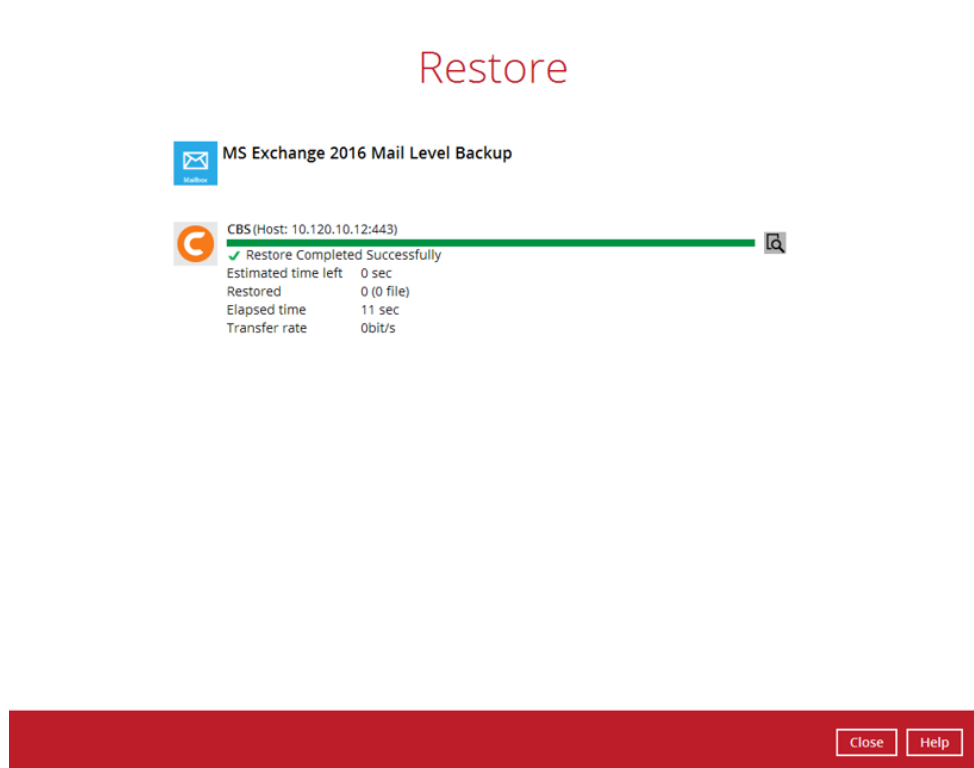
Previous Next Cancel Help

Please refer to the [Limitation](#) part to check the limitation of restore process.

6. Select the temporary directory for storing temporary files, such as delta files when they are being merged, click **Restore** to start the restoration.



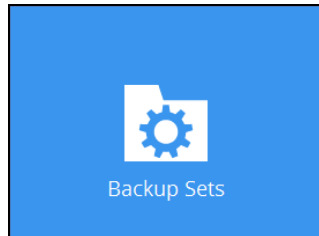
7. The following screen with the text **Restore Completed Successfully** shows when the restoration is completed.



## 4.2 Database Availability Group (DAG) Backup Option

### 4.2.1 Create Mail Level Backup Set

1. Click the **Backup Sets** icon on the main interface of OBM.



2. Create a new backup set by clicking the “+” icon next to **Add new backup set**.
3. Select the Backup set type as **MS Exchange Mail Level Backup**. The system will automatically detect and select the Exchange Server version, make sure the version selected is correct.

- Name your new backup set.
- Enter the hostname of all the DAG Member Server.
- Enter the username and password of the Windows user account used for backup.
- Check the “Access the Internet through proxy” if required. Then click **Next** to proceed.

### Create Backup Set

Name

Backup set type  
 

Version  

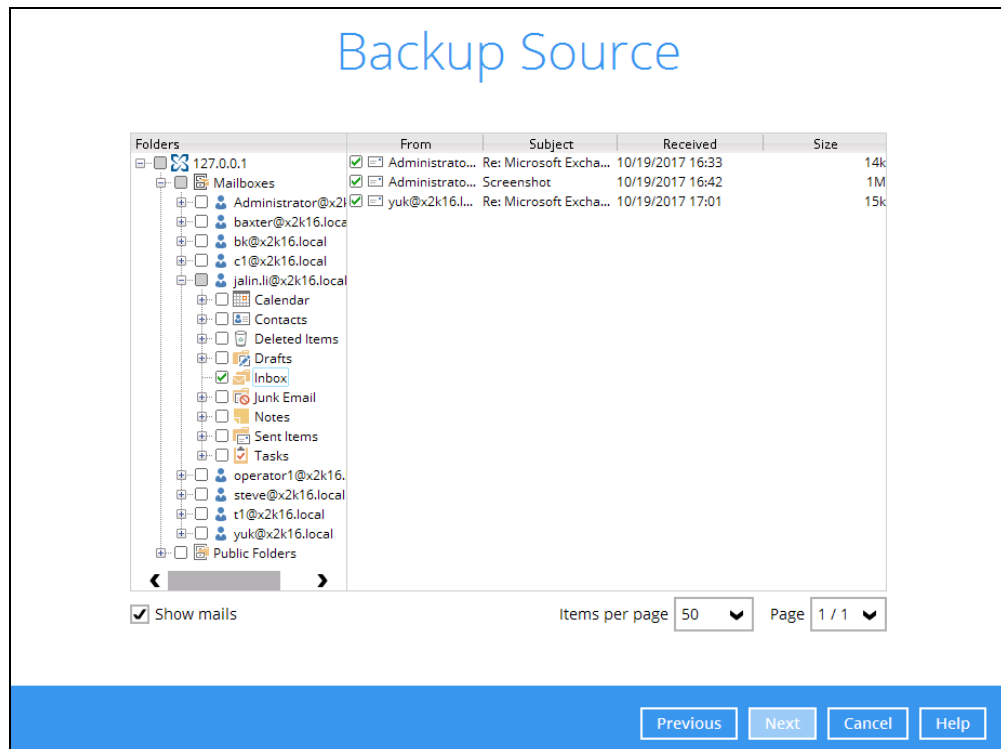
Host (DAG Member Server)

Username

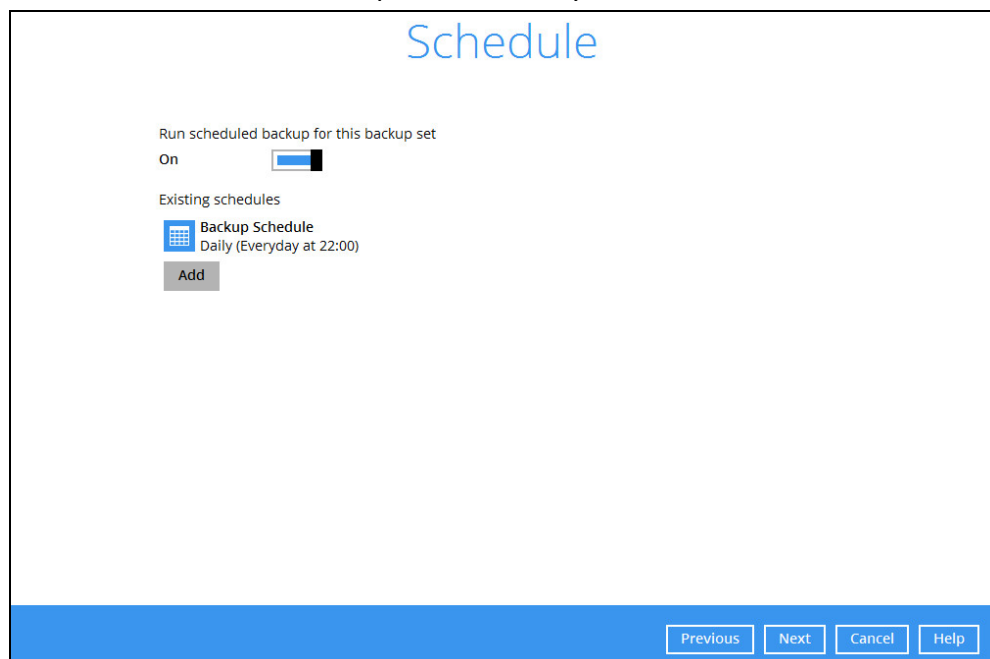
Password

☐ Access the Internet through proxy

4. In the **Backup Source** menu, select the mailboxes or public folders for backup. You can click to expand the mailbox or public folder to select which mail folder to back up. You can also click **Show mails** to select individual mail to back up. Click **Next** to proceed when you are done.

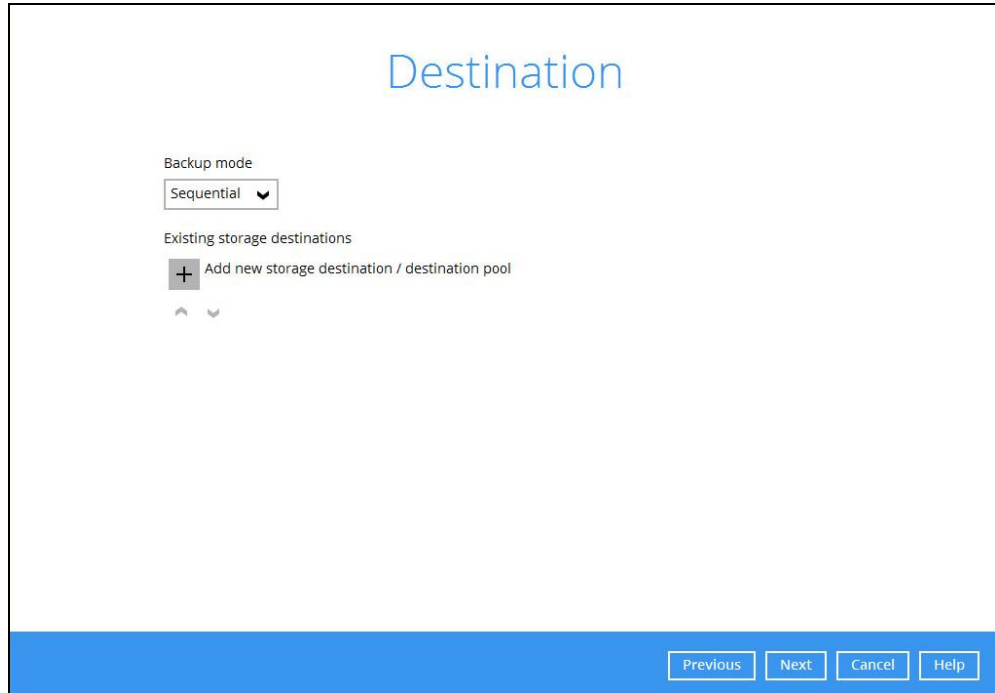


5. In the Schedule menu, you can configure a backup schedule for backup job to run automatically at your specified time interval. Click **Add** to add a new schedule, then click **Next** to proceed when you are done.



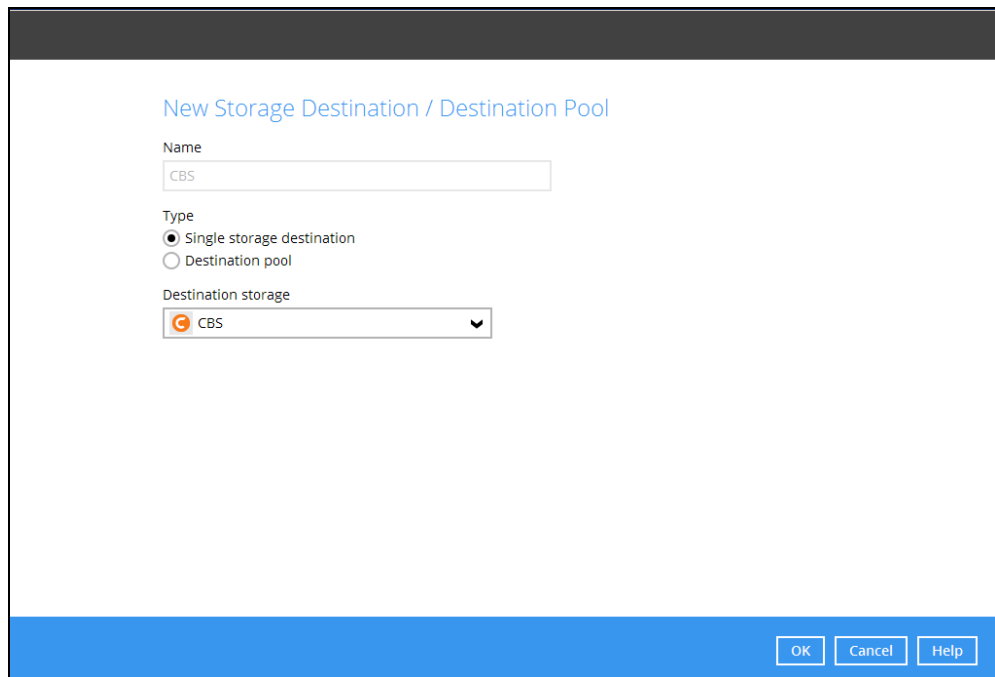
**Note:** By default, a daily backup scheduled for 22:00 is created automatically.

6. In the Destination menu, select a backup destination where the backup mail will be stored. Click the “+” icon next to **Add new storage destination / destination pool**.



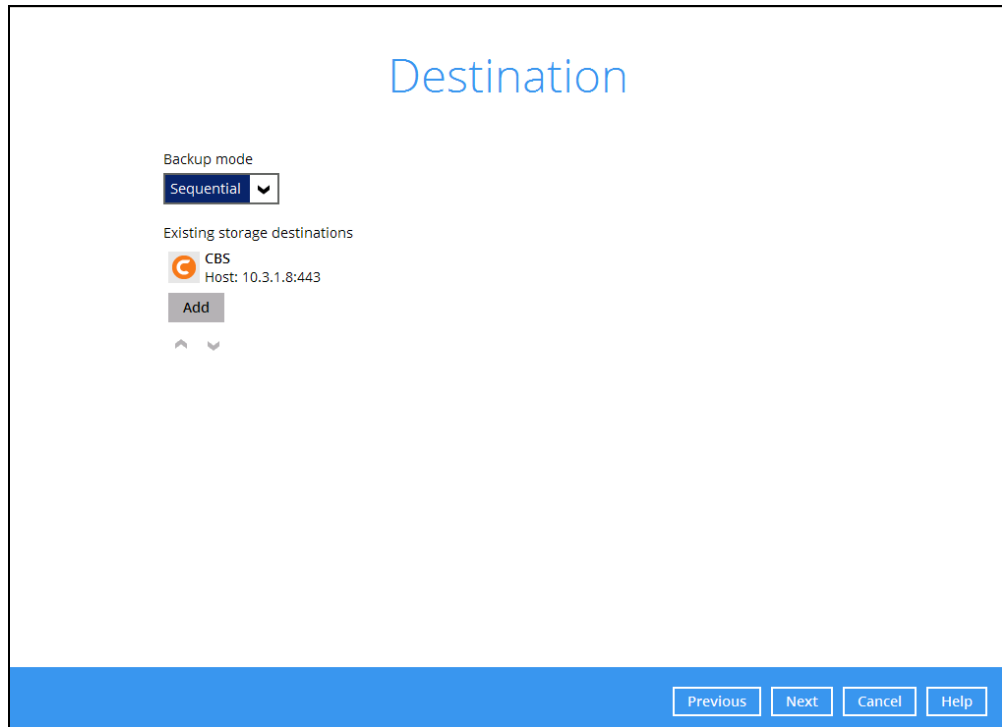
The screenshot shows a window titled "Destination" in blue text. Below the title, there is a "Backup mode" section with a dropdown menu currently set to "Sequential". Underneath, the "Existing storage destinations" section contains a "+" icon followed by the text "Add new storage destination / destination pool". Below this text are two small, faint upward and downward arrow icons. At the bottom of the window, there is a blue bar with four buttons: "Previous", "Next", "Cancel", and "Help".

7. Select the destination type and destination storage, then click **OK** to proceed.



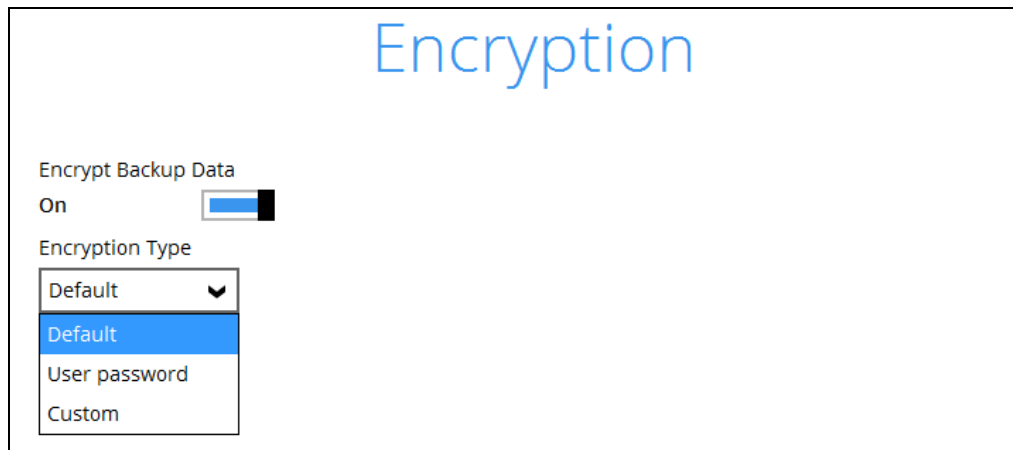
The screenshot shows a dialog box titled "New Storage Destination / Destination Pool" in blue text. It contains three main sections: "Name" with a text input field containing "CBS"; "Type" with two radio buttons, "Single storage destination" (which is selected) and "Destination pool"; and "Destination storage" with a dropdown menu showing a CBS icon and the text "CBS". At the bottom of the dialog, there is a blue bar with three buttons: "OK", "Cancel", and "Help".

8. Click **Next** on the Destination menu page to proceed.



The screenshot shows the 'Destination' configuration window. At the top, the title 'Destination' is displayed in blue. Below it, the 'Backup mode' is set to 'Sequential' in a dropdown menu. Under 'Existing storage destinations', there is a list showing 'CBS' with a host of '10.3.1.8:443'. An 'Add' button is located below the list. At the bottom right, there are four buttons: 'Previous', 'Next', 'Cancel', and 'Help'.

9. In the Encryption window, the default **Encrypt Backup Data** option is enabled with an encryption key preset by the system which provides the most secure protection.



The screenshot shows the 'Encryption' configuration window. The title 'Encryption' is displayed in blue. Below it, the 'Encrypt Backup Data' option is set to 'On' with a toggle switch. Under 'Encryption Type', there is a dropdown menu with 'Default' selected. The dropdown menu is open, showing the following options: 'Default', 'User password', and 'Custom'.

10. You can choose from one of the following three Encryption Type options:
- **Default** – an encryption key with 44 alpha numeric characters will be randomly generated by the system
  - **User password** – the encryption key will be the same as the login password of your OBM at the time when this backup set is created. Please be reminded that if you change the OBM login password later, the encryption keys of the backup sets previously created with this encryption type will remain unchanged.

- **Custom** – you can customize your encryption key, where you can set your own algorithm, encryption key, method and key length.

The screenshot shows a window titled "Encryption" with the following settings:

- Encrypt Backup Data:** On (toggle switch is on)
- Encryption Type:** Custom (dropdown menu)
- Algorithm:** AES (dropdown menu)
- Encryption key:** A text field containing seven asterisks (\*\*\*\*\*).
- Re-enter encryption key:** A text field containing seven asterisks (\*\*\*\*\*).
- Method:** Radio buttons for ECB and CBC, with CBC selected.
- Key length:** Radio buttons for 128-bit and 256-bit, with 256-bit selected.

Click **Next** when you are done setting.

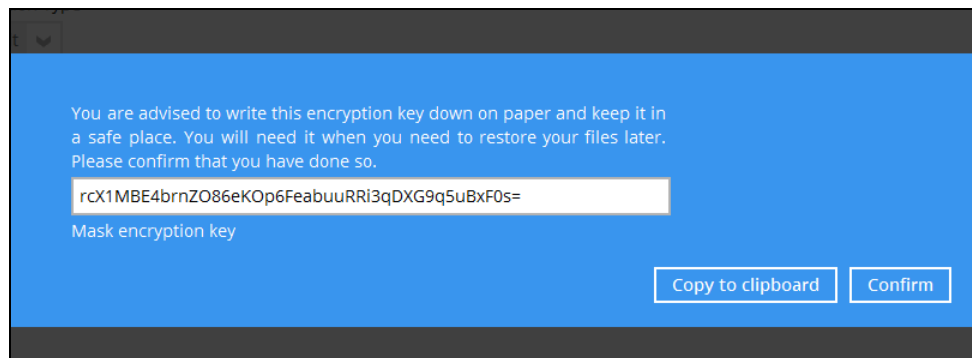
11. If you have enabled the Encryption Key feature in the previous step, the following pop-up window shows, no matter which encryption type you have selected.

The screenshot shows a confirmation pop-up window titled "Encryption" with a blue background. It contains the following text and elements:

- Encrypt Backup Data:** On (toggle switch is on)
- Encryption Type:** Default (dropdown menu)
- Message:** "You are advised to write this encryption key down on paper and keep it in a safe place. You will need it when you need to restore your files later. Please confirm that you have done so."
- Encryption key:** A text field showing seven black dots (•••••••).
- Unmask encryption key:** A link below the key field.
- Buttons:** "Copy to clipboard" and "Confirm" buttons at the bottom right.

The pop-up window has the following three options to choose from:

- **Unmask encryption key** – The encryption key is masked by default. Click this option to show the encryption key.

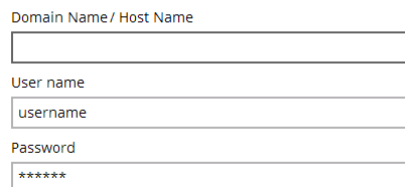


A screenshot of a Windows User Authentication pop-up window. The window has a blue background and a dark gray title bar. The text inside reads: "You are advised to write this encryption key down on paper and keep it in a safe place. You will need it when you need to restore your files later. Please confirm that you have done so." Below this text is a text box containing the encryption key: "rcX1MBE4brnZO86eKOp6FeabuuRRI3qDXG9q5uBxF0s=". Below the text box is the label "Mask encryption key". At the bottom right of the window are two buttons: "Copy to clipboard" and "Confirm".

- **Copy to clipboard** – Click to copy the encryption key, then you can paste it in another location of your choice.
- **Confirm** – Click to exit this pop-up window and proceed to the next step

12. Enter the Windows login credentials for user authentication. Click **Next** to proceed.

## Windows User Authentication



A screenshot of the Windows User Authentication form. It contains three input fields: "Domain Name/ Host Name" (empty), "User name" (containing "username"), and "Password" (containing "\*\*\*\*\*").

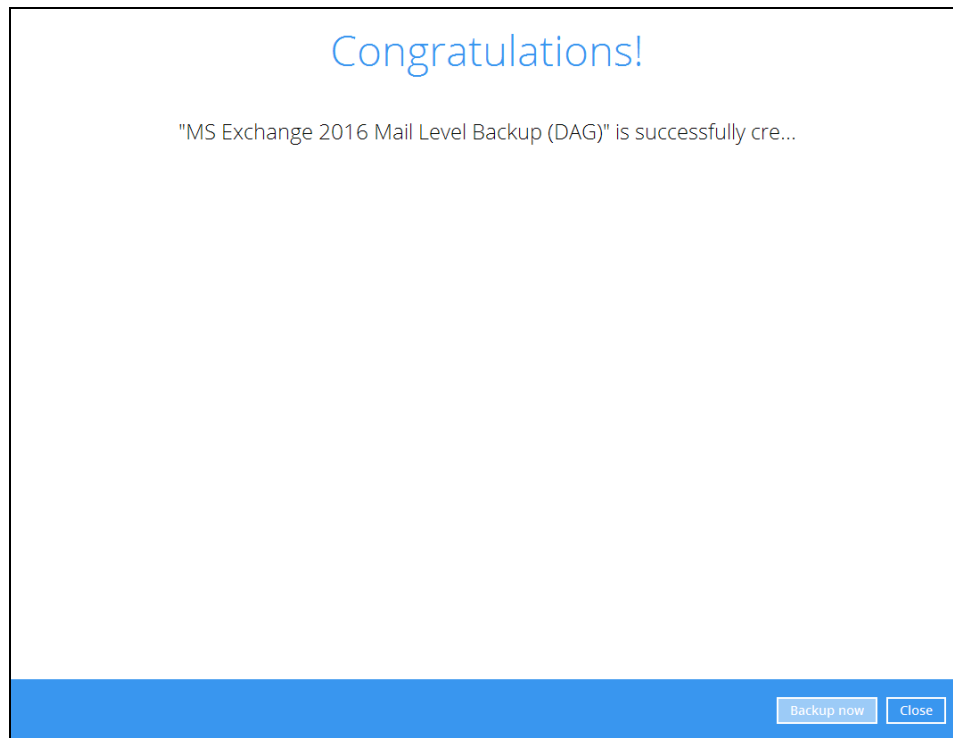


A screenshot of the Windows User Authentication navigation buttons. It shows four buttons: "Previous", "Next", "Cancel", and "Help".

### Note

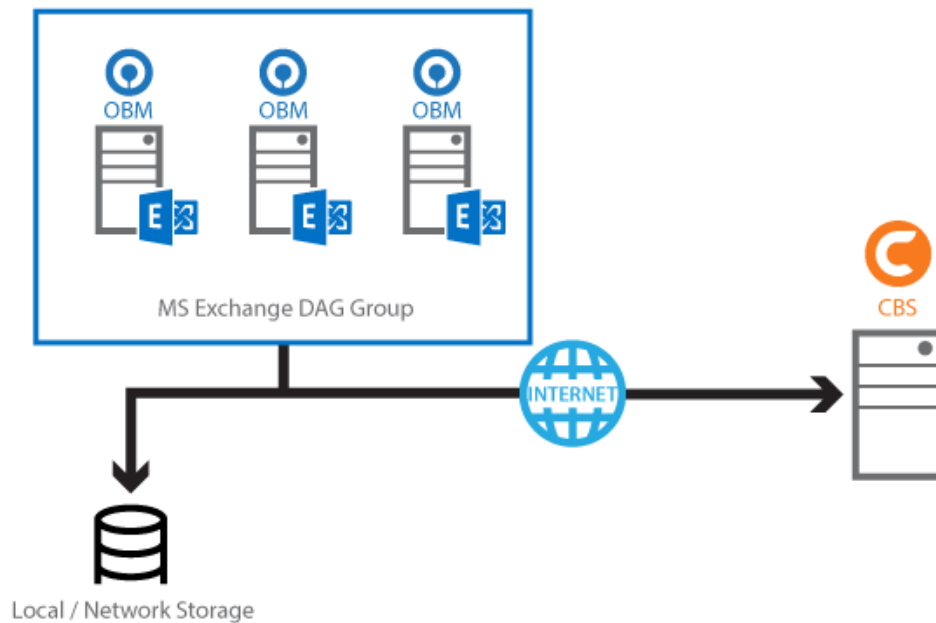
The Windows User Authentication interface will show only if scheduled backup is enabled and set successfully.

13. The following screen shows when the new backup set is created successfully.



14. Click Backup now to start a backup immediately, or you can run a backup job later by following the instructions in [Run Mail Level Backup Job](#)

#### 4.2.2 Run Mail Level Backup Job

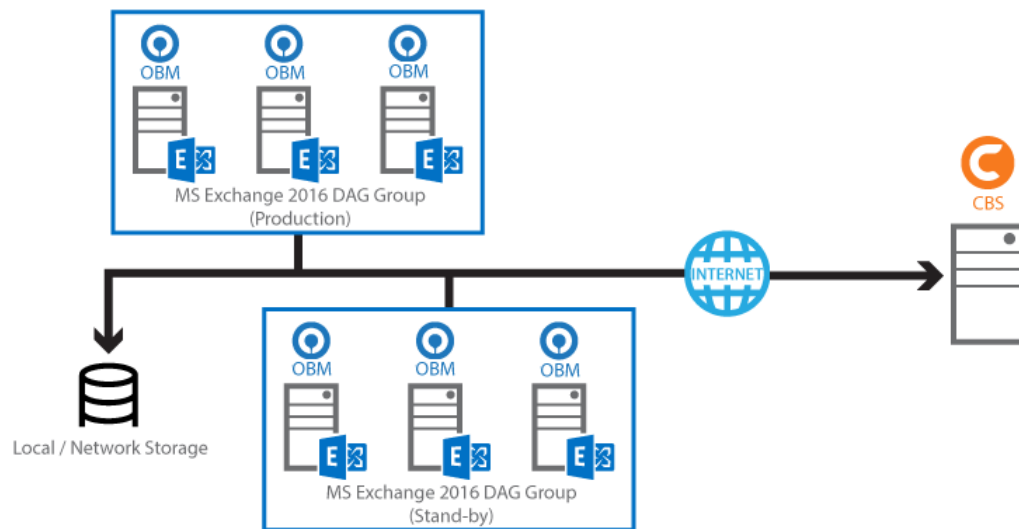


As mentioned in the [Requirement](#) section of this guide, if choose to back up an Exchange DAG setup by installing OBM on each DAG members, only a scheduled backup that is performed on all DAG members at the scheduled time, will be considered a complete backup. OBM on all DAG members will start a backup, base on the scheduled time of the backup set at the same time.

A manual backup performed only on individual DAG member will not be considered complete.

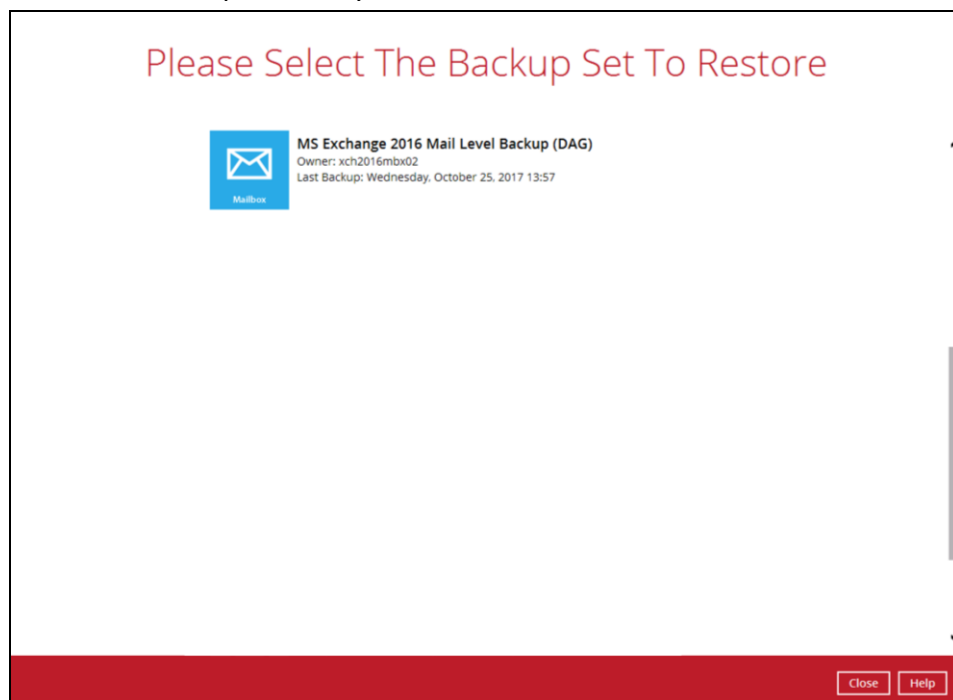
Please refer to the [Scheduled Backup for Exchange Server in Data Availability Group \(DAG\) Option](#) for details.

### 4.2.3 Restore Mail Level Backup



Below are the steps of restore process.

1. In the OBM main interface, click the **Restore** icon.
2. Select the backup set that you would like to restore mail from.



3. Select the backup destination that contains the mail(s) that you would like to restore.

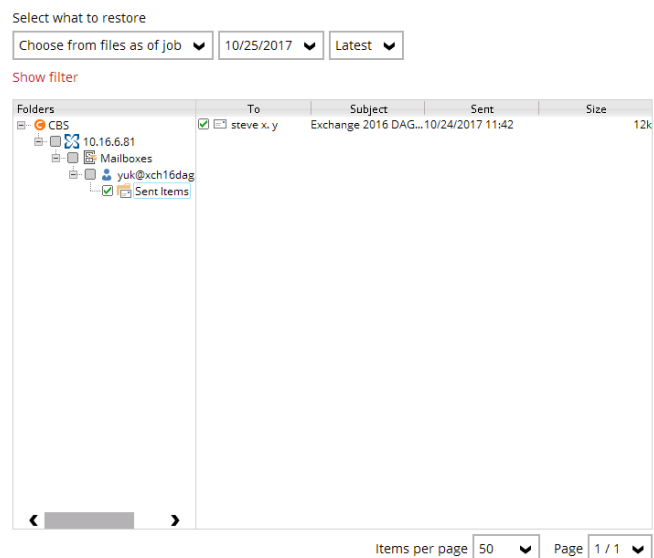
## Select The Destination From Which To Restore D...



Previous Cancel Help

4. Click to expand the menu tree to select which mailbox to restore. You can also select mail item(s) from a specific backup job or all mail items that you have backed up to restore. Click **Next** to proceed.

## Select Your Mail Objects To Be Restored



Previous Next Cancel Help

5. Select to restore the mail to their Original mailbox, or to an Alternate mailbox.

• **Restore to Original Mailbox**

Select the **Original location** option, then press **Next** to proceed.

Choose Where The Mail Objects To Be Restor...

Restore mail objects to

☒ Original location

☐ Alternate location

Administrator@x2k16.local

Previous Next Cancel Help

• **Restore to Alternate Mailbox**

You can choose to restore mailbox item(s) to another mailbox in the same Exchange server. Select the **Alternate location** option and the desired mailbox destination, then press **Next** to proceed.

In addition, you can also restore mailbox item(s) to a different Exchange server of the same version. In this case, the restoration should be

triggered by the OBM on the destination Exchange server.

## Choose Where The Mail Objects To Be Restor...

Restore mail objects to

☐ Original location

☒ Alternate location

Administrator@x2k16.local

Administrator@x2k16.local

backup1@x2k16.local

backupadmin@x2k16.local

baxter@x2k16.local

bk@x2k16.local

c1@x2k16.local

jalin.li@x2k16.local

operator1@x2k16.local

Previous

Next

Cancel

Help

Please refer to the [Limitation](#) part to check the limitation of restore process.

6. Select the temporary directory for storing temporary files, such as delta files when they are being merged, click **Restore** to start the restoration.

## Temporary Directory

Temporary directory for storing restore files

C:\Users\Administrator\obm\temp

Browse

Previous

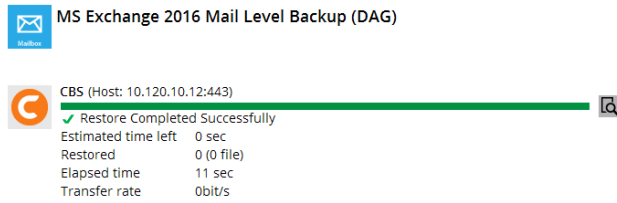
Restore

Cancel

Help

7. The following screen with the text **Restore Completed Successfully** shows when the restoration is completed.

## Restore



Close

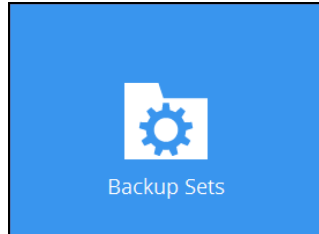
Help

## 5 On Remote Backup Machine

### 5.1 Standalone Backup Option

#### 5.1.1 Create Mail Level Backup Set

1. Click the **Backup Sets** icon on the main interface of OBM.



2. Create a new backup set by clicking the "+" icon next to **Add new backup set**.
3. Select the Backup set type as **MS Exchange Mail Level Backup**.
  - ⦿ Select Microsoft Exchange Server version as **Microsoft Exchange Server 2016**.
  - ⦿ Name your new backup set.
  - ⦿ Enter the hostname of Exchange server 2016.
  - ⦿ Enter the username and password of the Windows user account used for backup.
  - ⦿ Check the "Access the Internet through proxy" if required. Then click **Next** to proceed.

## Create Backup Set

Name

Backup set type

Version

Host

Username

Password

☐ Access the Internet through proxy

- In the **Backup Source** menu, select the mailboxes or public folders for backup. You can click to expand the mailbox or public folder to select which mail folder to back up. You can also click **Show mails** to select individual mail to back up. Click **Next** to proceed when you are done.

## Backup Source

| From              | Subject                 | Received         | Size |
|-------------------|-------------------------|------------------|------|
| jalini.li@x2k1... | Microsoft Exchange ...  | 10/19/2017 16:32 | 14k  |
| yuk@x2k16.l...    | Re: Microsoft Excha...  | 10/19/2017 17:01 | 17k  |
| t1@x2k16.loc...   | Re: Relay this messa... | 10/19/2017 17:22 | 1M   |
| yuk@x2k16.l...    | Re: Relay this messa... | 10/20/2017 11:54 | 10M  |
| t1@x2k16.loc...   | Help with Exchange ...  | 10/20/2017 17:19 | 11k  |

☒ Show mails

Items per page  Page

- In the Schedule menu, you can configure a backup schedule for backup job to run automatically at your specified time interval. Click **Add** to add a new

schedule, then click **Next** to proceed when you are done.

The 'Schedule' window has a title bar and a main content area. At the top, the word 'Schedule' is displayed in a large blue font. Below it, the text 'Run scheduled backup for this backup set' is followed by a toggle switch labeled 'On'. Underneath, the section 'Existing schedules' contains a list with one entry: 'Backup Schedule' with a calendar icon and the text 'Daily (Everyday at 22:00)'. Below this list is a grey 'Add' button. At the bottom of the window is a blue bar containing four buttons: 'Previous', 'Next', 'Cancel', and 'Help'.

**Note:** By default, a daily backup scheduled for 22:00 is created automatically.

6. In the Destination menu, select a backup destination where the backup mail will be stored. Click the “+” icon next to **Add new storage destination / destination pool**.

The 'Destination' window has a title bar and a main content area. At the top, the word 'Destination' is displayed in a large blue font. Below it, the section 'Backup mode' features a dropdown menu currently set to 'Sequential'. Underneath, the section 'Existing storage destinations' contains a list with one entry: a plus icon followed by the text 'Add new storage destination / destination pool'. Below this list are two small, faint icons. At the bottom of the window is a blue bar containing four buttons: 'Previous', 'Next', 'Cancel', and 'Help'.

7. Select the destination type and destination storage, then click **OK** to proceed.

The screenshot shows a window titled "New Storage Destination / Destination Pool". It contains the following fields and options:

- Name:** A text input field containing "CBS".
- Type:** Two radio button options: "Single storage destination" (selected) and "Destination pool".
- Destination storage:** A dropdown menu showing "CBS" with a small downward arrow icon.

At the bottom right, there are three buttons: "OK", "Cancel", and "Help".

8. Click **Next** on the Destination menu page to proceed.

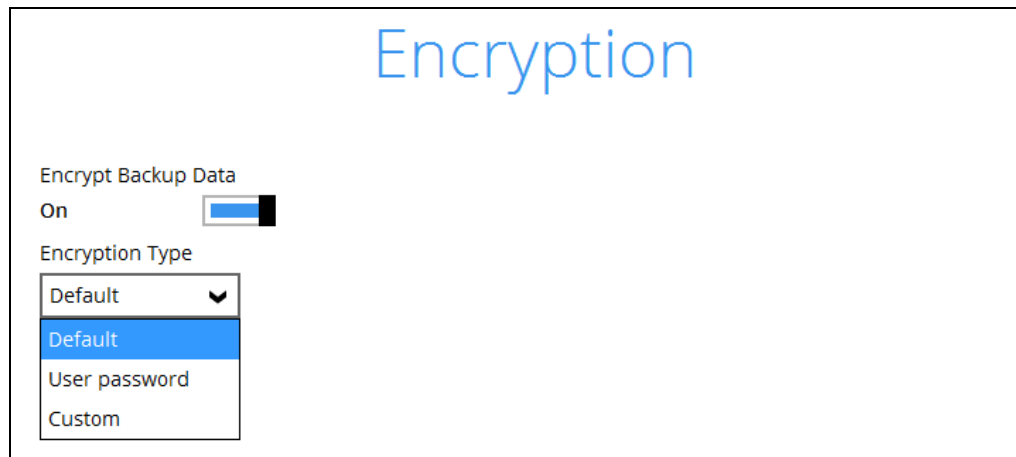
The screenshot shows a window titled "Destination". It contains the following elements:

- Backup mode:** A dropdown menu showing "Sequential" with a small downward arrow icon.
- Existing storage destinations:** A list showing one entry: "CBS" with a host address "Host: 10.3.1.8:443". Below the list is an "Add" button and two small upward/downward arrow icons.

At the bottom right, there are four buttons: "Previous", "Next", "Cancel", and "Help".

9. In the Encryption window, the default **Encrypt Backup Data** option is enabled with an encryption key preset by the system which provides the most secure

protection.



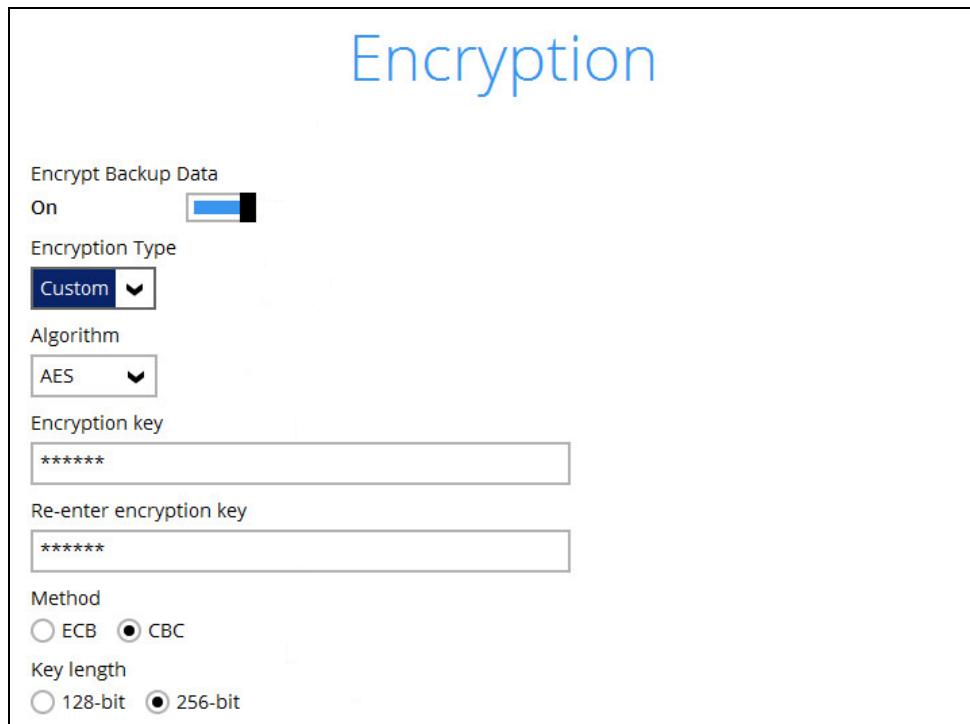
Encryption

Encrypt Backup Data  
On ☐

Encryption Type  
Default ▼  
Default  
User password  
Custom

10. You can choose from one of the following three Encryption Type options:

- **Default** – an encryption key with 44 alpha numeric characters will be randomly generated by the system
- **User password** – the encryption key will be the same as the login password of your OBM at the time when this backup set is created. Please be reminded that if you change the OBM login password later, the encryption keys of the backup sets previously created with this encryption type will remain unchanged.
- **Custom** – you can customize your encryption key, where you can set your own algorithm, encryption key, method and key length.



Encryption

Encrypt Backup Data  
On ☐

Encryption Type  
Custom ▼

Algorithm  
AES ▼

Encryption key  
\*\*\*\*\*

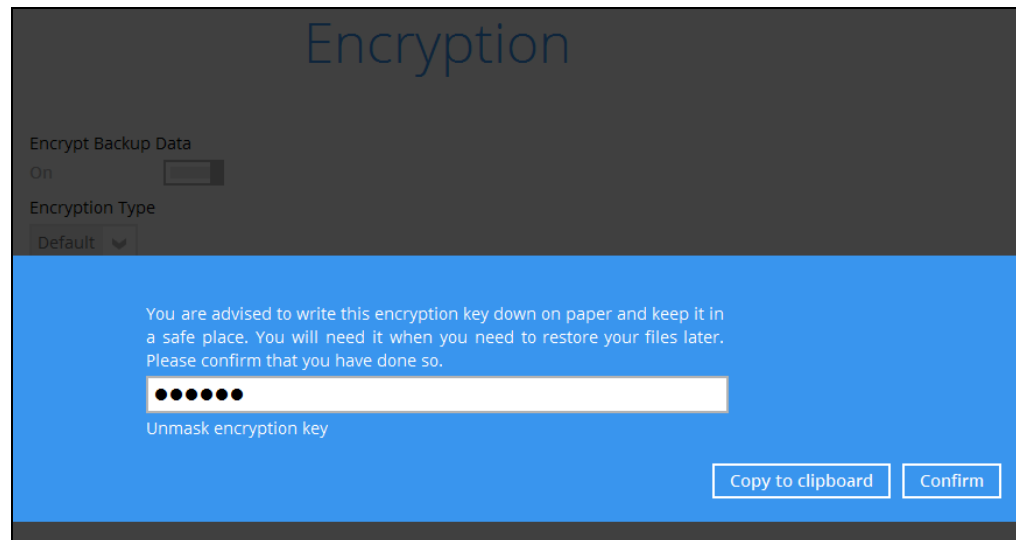
Re-enter encryption key  
\*\*\*\*\*

Method  
☐ ECB ☒ CBC

Key length  
☐ 128-bit ☒ 256-bit

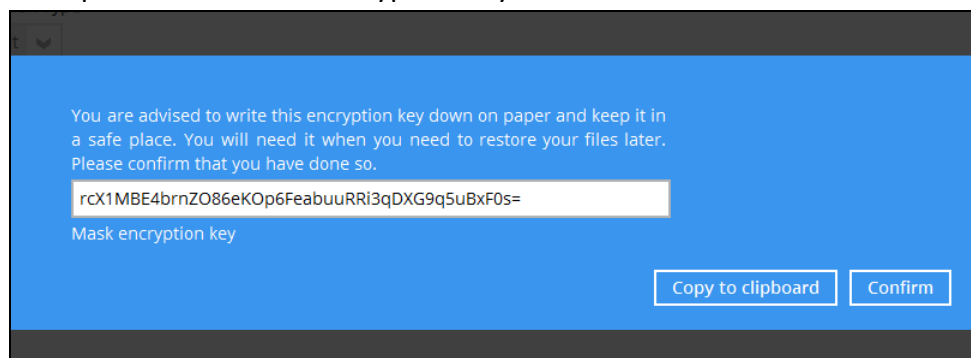
Click **Next** when you are done setting.

11. If you have enabled the Encryption Key feature in the previous step, the following pop-up window shows, no matter which encryption type you have selected.



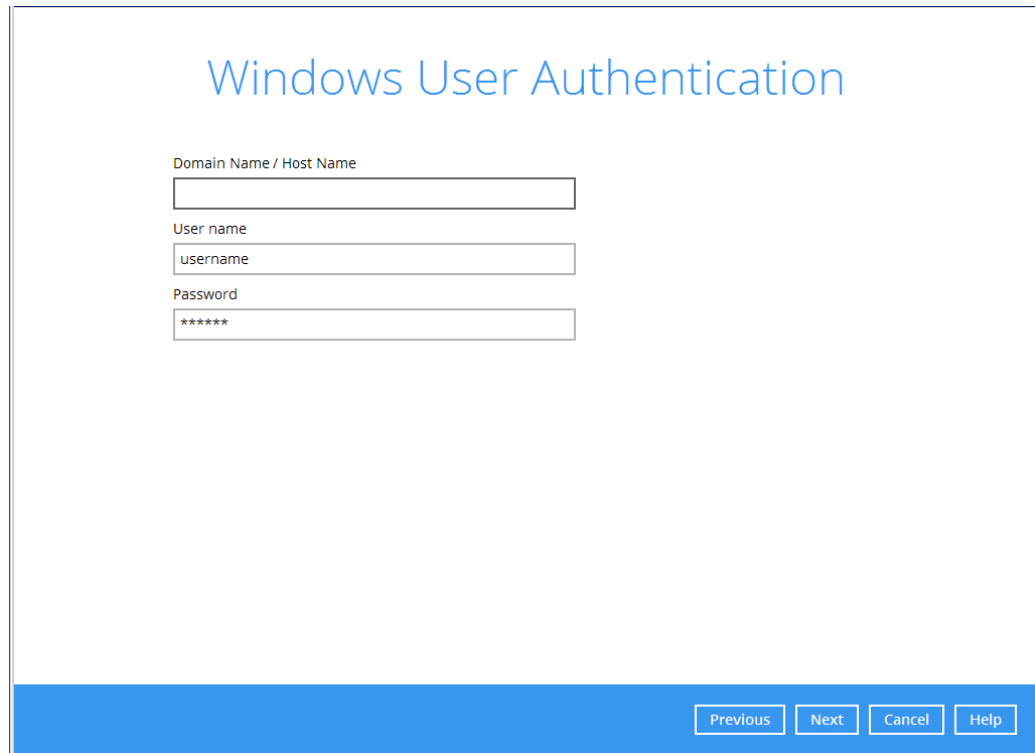
The pop-up window has the following three options to choose from:

- **Unmask encryption key** – The encryption key is masked by default. Click this option to show the encryption key.



- **Copy to clipboard** – Click to copy the encryption key, then you can paste it in another location of your choice.
- **Confirm** – Click to exit this pop-up window and proceed to the next step

12. Enter the Windows login credentials for user authentication. Click **Next** to proceed.

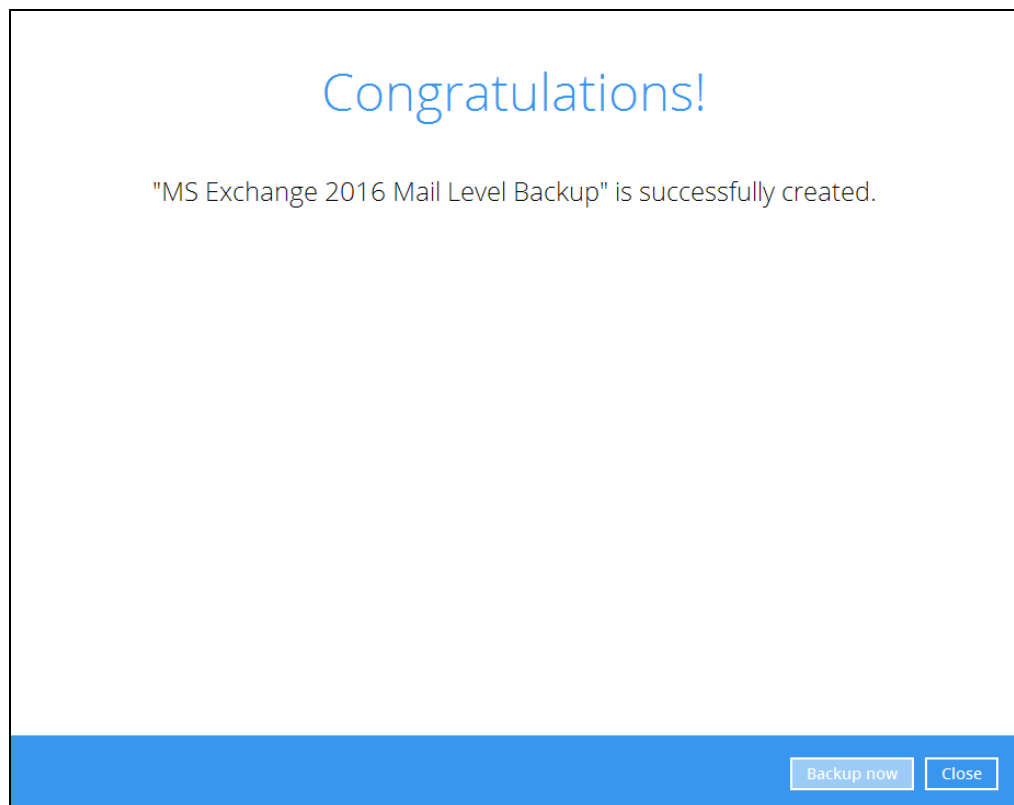


The screenshot shows a window titled "Windows User Authentication". It contains three input fields: "Domain Name / Host Name" (empty), "User name" (containing "username"), and "Password" (containing "\*\*\*\*\*"). At the bottom right, there is a blue bar with four buttons: "Previous", "Next", "Cancel", and "Help".

**Note**

The Windows User Authentication interface will show only if scheduled backup is enabled and set successfully.

13. The following screen shows when the new backup set is created successfully.



14. Click **Backup now** to start a backup immediately, or you can run a backup job later by following the instructions in [Run Mail Level Backup Job](#)

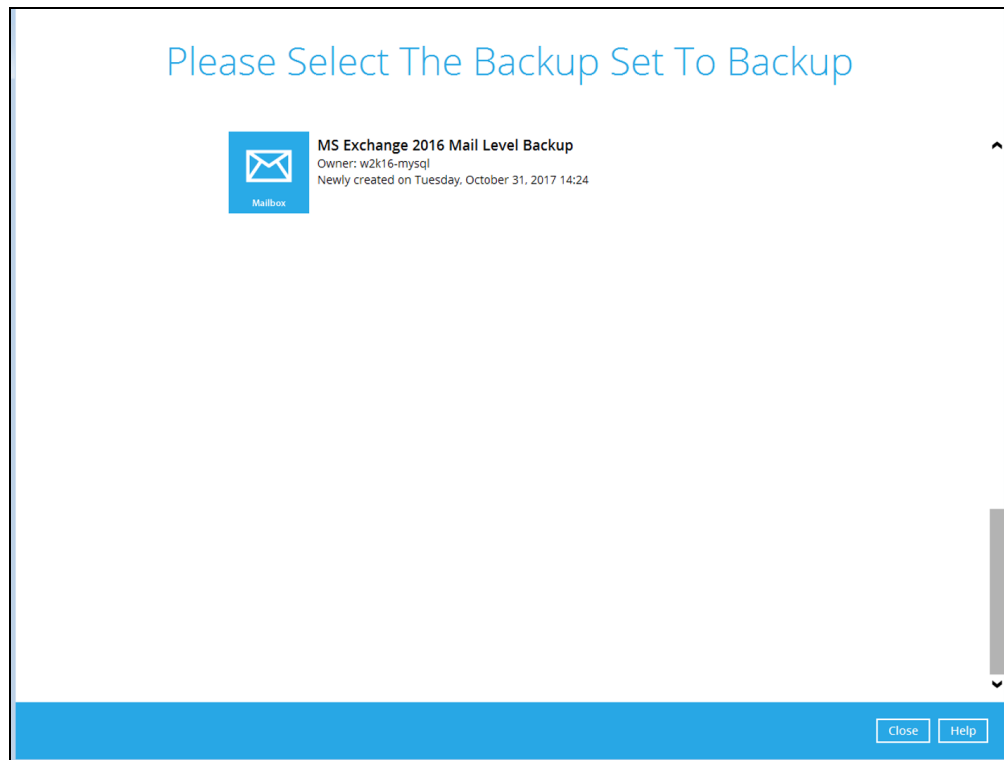
### 5.1.2 Run Mail Level Backup Job

Below are the steps of backup process.

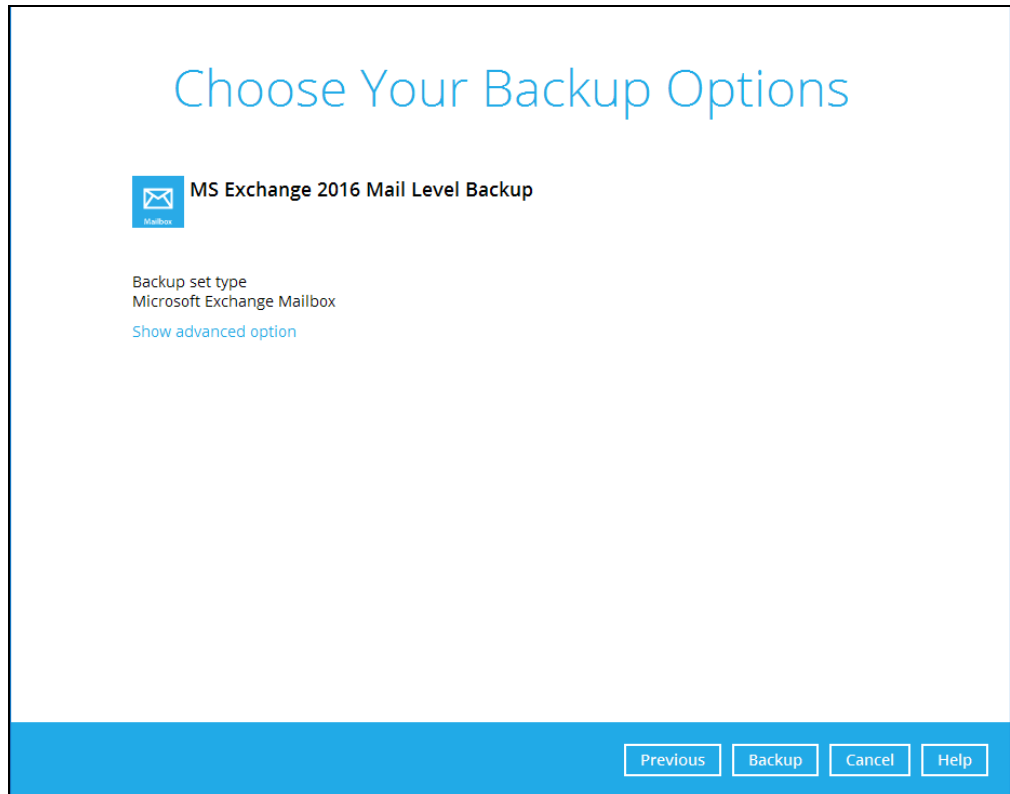
1. Log in to OBM.
2. Click the Backup icon on the main interface of OBM.



3. Select the backup set which you would like to start a backup for.



If you would like to modify the In-File Delta type, Destinations and Retention Policy settings, click **Show advanced option**.

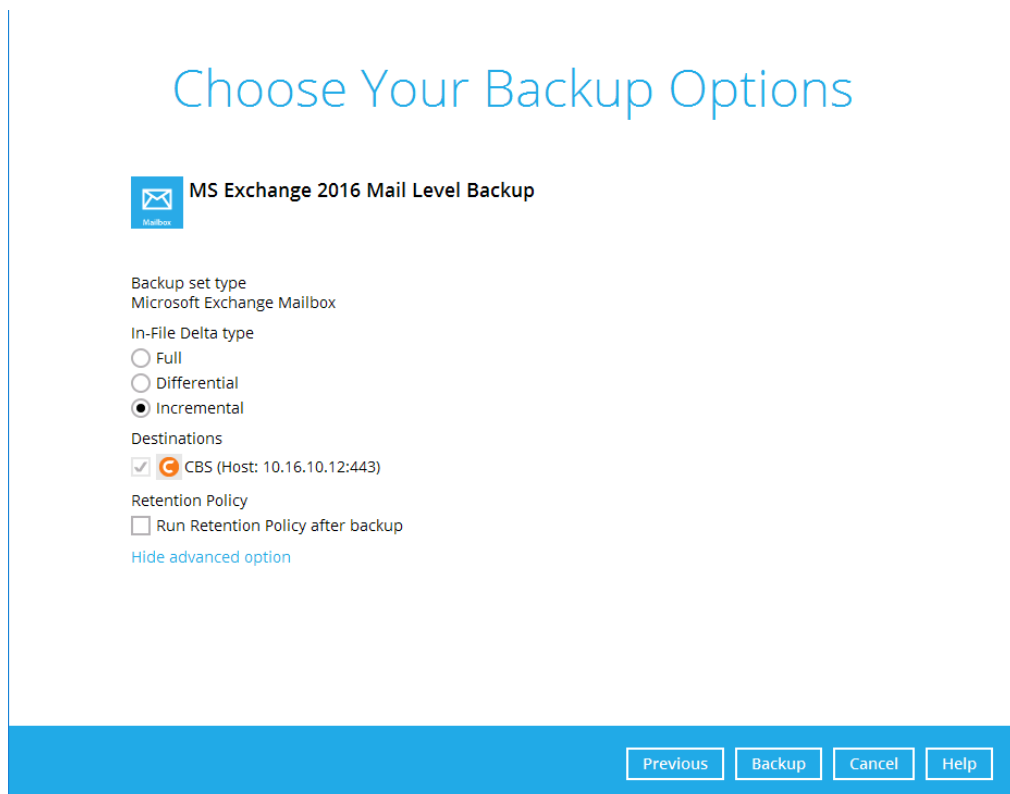


Choose Your Backup Options

 MS Exchange 2016 Mail Level Backup

Backup set type  
Microsoft Exchange Mailbox  
[Show advanced option](#)

[Previous](#) [Backup](#) [Cancel](#) [Help](#)



Choose Your Backup Options

 MS Exchange 2016 Mail Level Backup

Backup set type  
Microsoft Exchange Mailbox

In-File Delta type  
☐ Full  
☐ Differential  
☒ Incremental

Destinations  
☒  CBS (Host: 10.16.10.12:443)

Retention Policy  
☐ Run Retention Policy after backup  
[Hide advanced option](#)

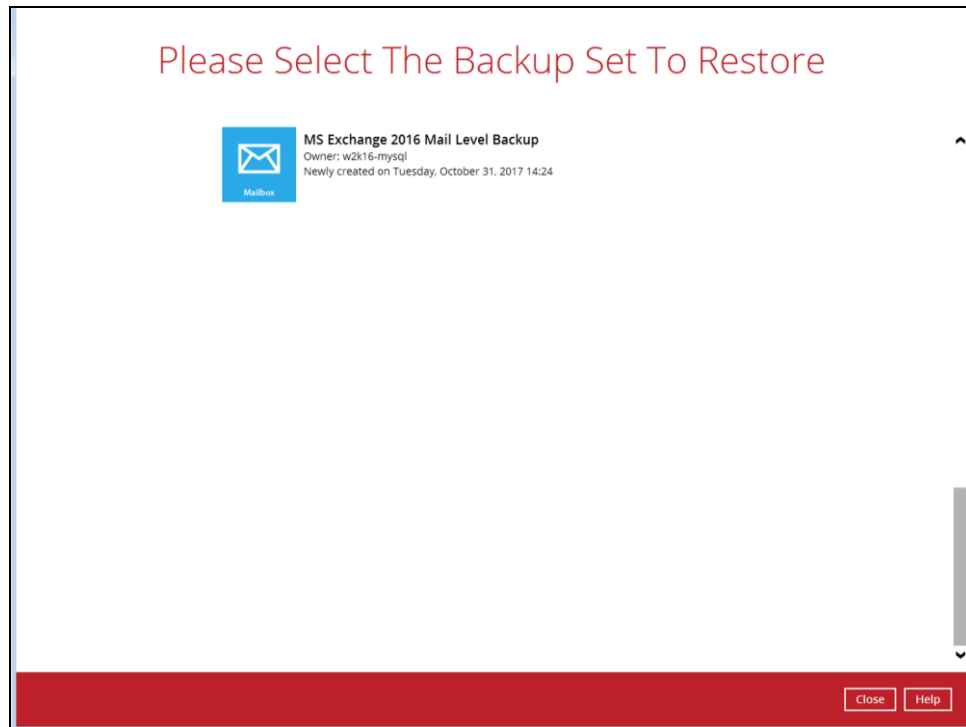
[Previous](#) [Backup](#) [Cancel](#) [Help](#)

4. Click **Backup** to start the backup.

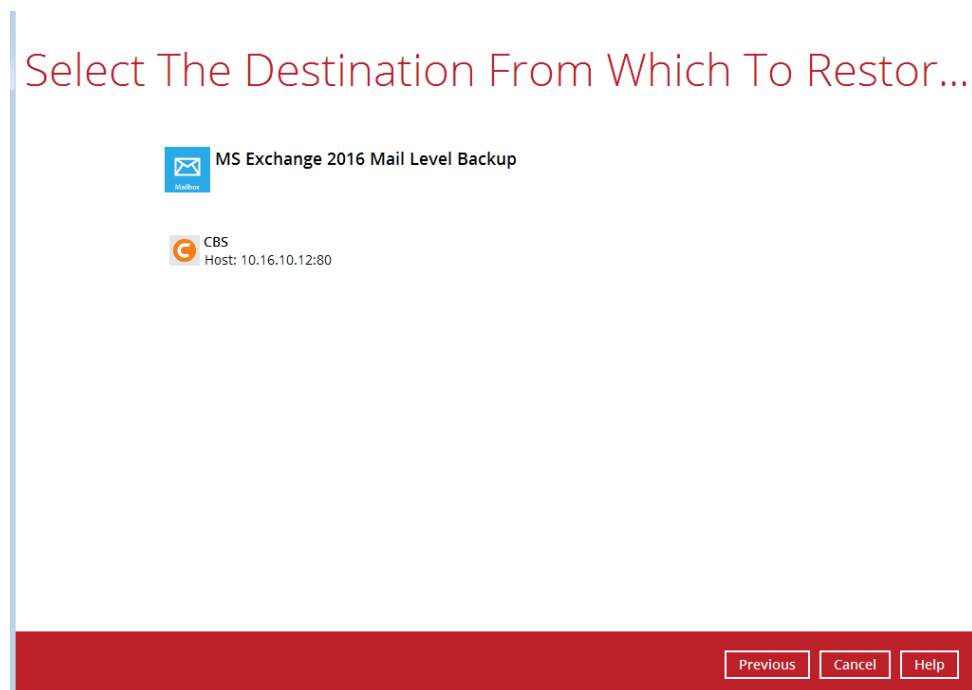
### 5.1.3 Restore Mail Level Backup

#### 1. Restore Backed up Items to Original Exchange Server

- i. In the OBM main interface, click the **Restore** icon.
- ii. Select the backup set that you would like to restore mail from.



- iii. Select the backup destination that contains the mail(s) that you would like to restore.



- iv. Click to expand the menu tree to select which mailbox to restore. You can also select mail item(s) from a specific backup job or all mail items that you have backed up to restore. Click **Next** to proceed.

## Select Your Mail Objects To Be Restored

Select what to restore

Choose from files as of job 10/25/2017 Latest

Choose from files as of job

Choose from ALL files

|                          | From             | Subject                 | Received         | Size |
|--------------------------|------------------|-------------------------|------------------|------|
| <input type="checkbox"/> | jalin.ji@x2k1... | Microsoft Exchange ...  | 10/19/2017 16:32 | 14k  |
| <input type="checkbox"/> | yuk@x2k16.l...   | Re: Microsoft Excha...  | 10/19/2017 17:01 | 17k  |
| <input type="checkbox"/> | t1@x2k16.loc...  | Re: Relay this messa... | 10/19/2017 17:22 | 1M   |
| <input type="checkbox"/> | yuk@x2k16.l...   | Re: Relay this messa... | 10/20/2017 11:54 | 10M  |
| <input type="checkbox"/> | t1@x2k16.loc...  | Help with Exchange ...  | 10/20/2017 17:19 | 11k  |

Items per page 50 Page 1 / 1

[Previous](#) [Next](#) [Cancel](#) [Help](#)

- v. Select to restore the mail to their Original mailbox, or to an Alternate mailbox.

### Restore to Original Mailbox

Select the **Original location** option, then press **Next** to proceed.

## Choose Where The Mail Objects To Be Restor...

Restore mail objects to

☒ Original location

☐ Alternate location Administrator@x2k16.local

[Previous](#) [Next](#) [Cancel](#) [Help](#)

### Restore to Alternate Mailbox

You can choose to restore mailbox item(s) to another mailbox in the same Exchange server. Select the **Alternate location** option and the desired mailbox destination, then press **Next** to proceed.

In addition, you can also restore mailbox item(s) to a different Exchange server of the same version. In this case, the restoration should be triggered by the OBM on the destination Exchange server.

### Choose Where The Mail Objects To Be Restor...

Restore mail objects to

☐ Original location

☒ Alternate location

Administrator@x2k16.local

Administrator@x2k16.local

backup1@x2k16.local

backupadmin@x2k16.local

baxter@x2k16.local

bk@x2k16.local

c1@x2k16.local

jalin.li@x2k16.local

operator1@x2k16.local

Previous Next Cancel Help

Please refer to the [Limitation](#) part to check the limitation of restore process.

- vi. Select the temporary directory for storing temporary files, such as delta files when they are being merged, click **Restore** to start the restoration.

### Temporary Directory

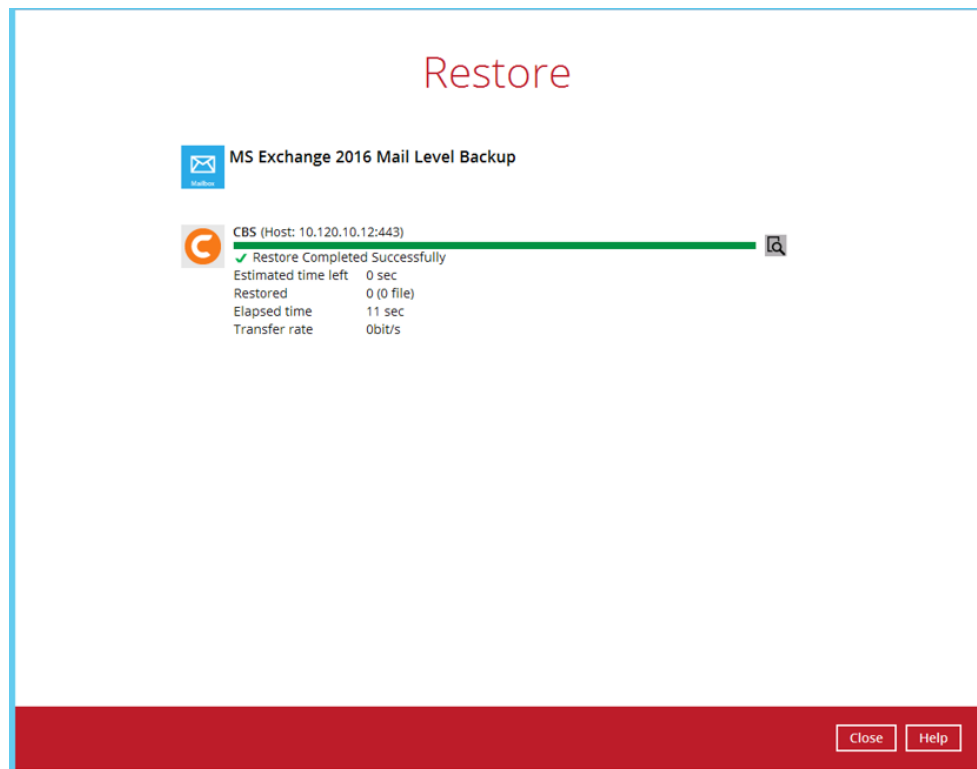
Temporary directory for storing restore files

C:\Users\Administrator\obm\temp

Browse

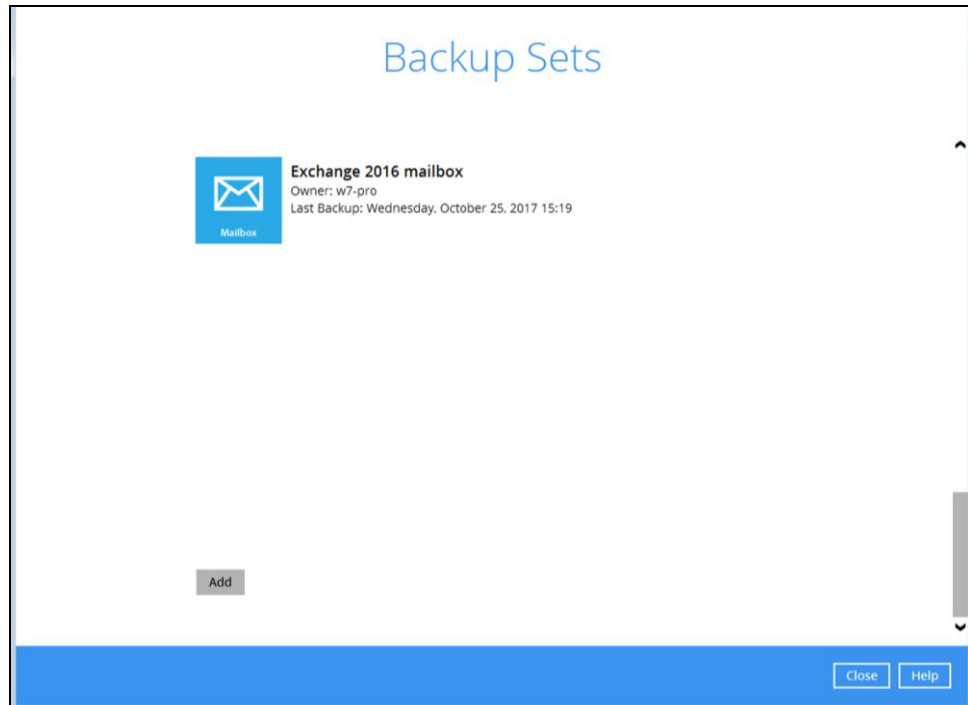
Previous Restore Cancel Help

- vii. The following screen with the text **Restore Completed Successfully** shows when the restoration is completed.

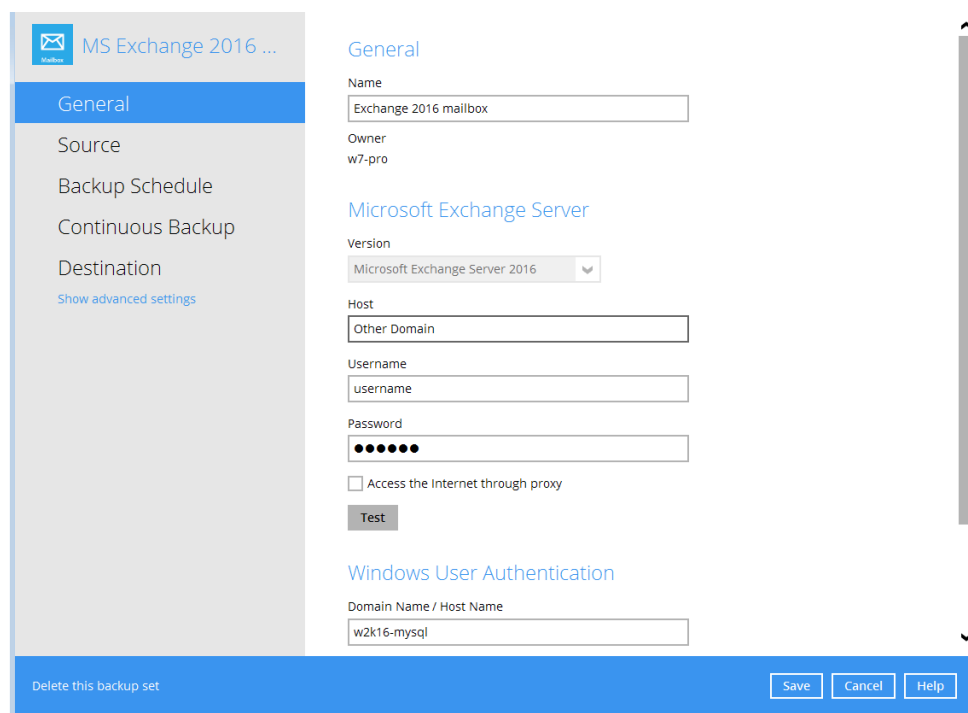


## 2. Restore Backed up Items to Another Domain

- i. In the OBM main interface, click **Backup Sets** icon.
- ii. Select the backup set that you would like to restore mail from.

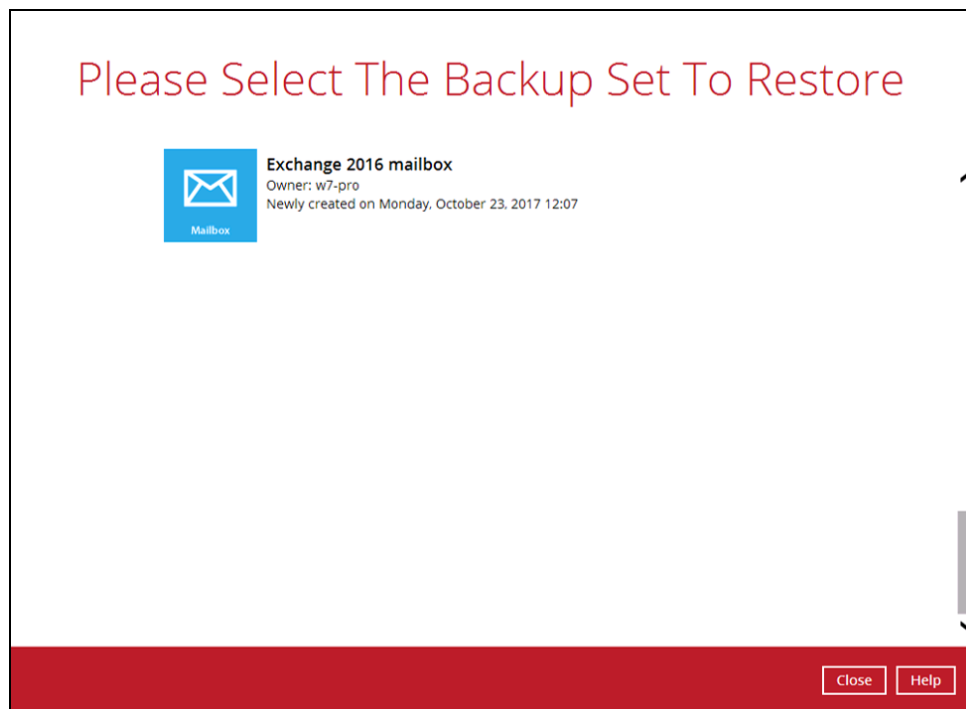


- iii. Change the Host to be other domain, and also the Username and Password of user account used for restore on the other domain. Click **Save** after setting is done.

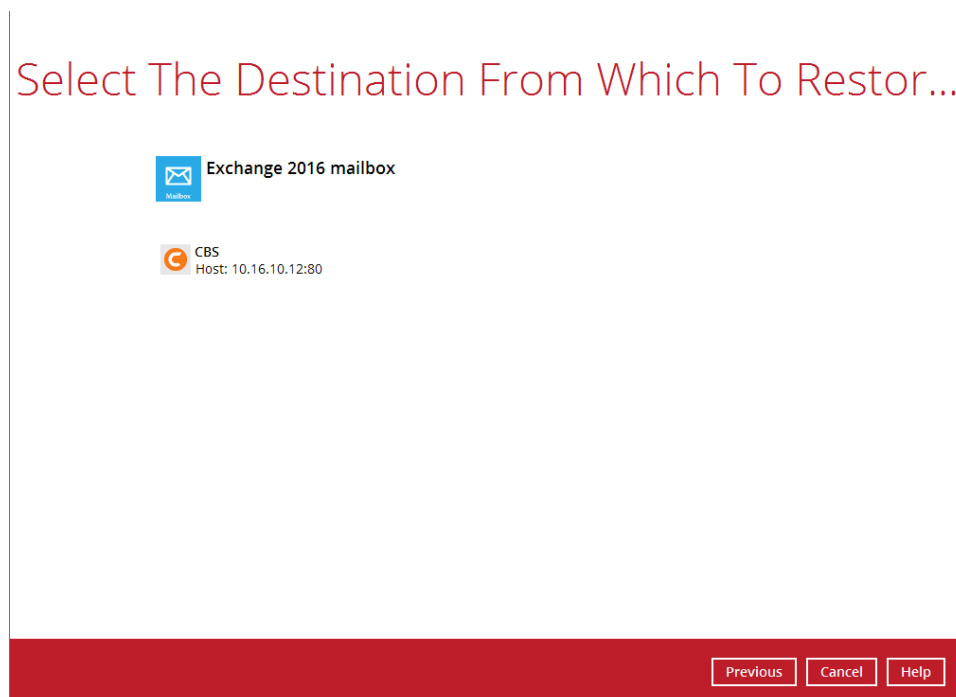


- iv. In the OBM main interface, click the **Restore** icon.

- v. Select the backup set that you would like to restore mail from.



- vi. Select the backup destination that contains the mail(s) that you would like to restore.



- vii. Click to expand the menu tree to select which mailbox to restore. You can also select mail item(s) from a specific backup job or all mail items that you have

backed up to restore. Click **Next** to proceed.

## Select Your Mail Objects To Be Restored

Select what to restore

Choose from files as of job 10/25/2017 Latest

Choose from files as of job

Choose from ALL files

|                                         | From             | Subject                 | Received         | Size |
|-----------------------------------------|------------------|-------------------------|------------------|------|
| <input checked="" type="checkbox"/> CBS | jalin.li@x2k1... | Microsoft Exchange ...  | 10/19/2017 16:32 | 14k  |
| <input type="checkbox"/> 10.16.10.37    | yuk@x2k16.l...   | Re: Microsoft Excha...  | 10/19/2017 17:01 | 17k  |
| <input type="checkbox"/> Mailboxes      | t1@x2k16.loc...  | Re: Relay this messa... | 10/19/2017 17:22 | 1M   |
| <input type="checkbox"/> backup1@x2k1   | yuk@x2k16.l...   | Re: Relay this messa... | 10/20/2017 11:54 | 10M  |
| <input type="checkbox"/> Inbox          | t1@x2k16.loc...  | Help with Exchange ...  | 10/20/2017 17:19 | 11k  |

Items per page 50 Page 1 / 1

[Previous](#) [Next](#) [Cancel](#) [Help](#)

- viii. Select to restore the mail to an Alternate mailbox, which would enable restore the items to the mailbox of other Exchange server. Click **Next** to proceed.

## Choose Where The Mail Objects To Be Restor...

Restore mail objects to

☐ Original location

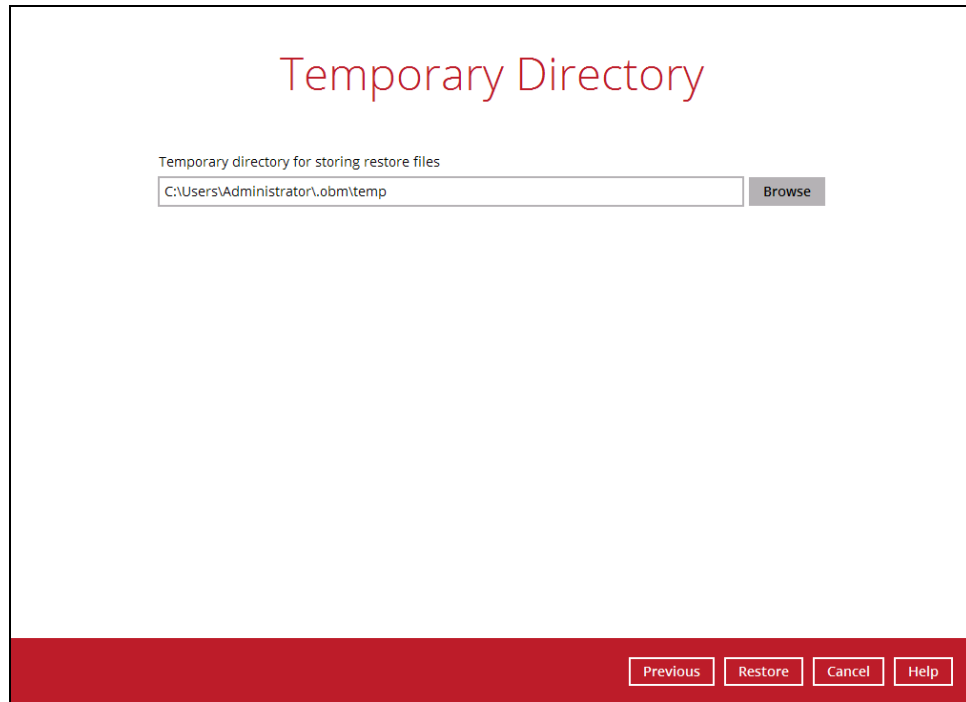
☒ Alternate location jalin

jalin

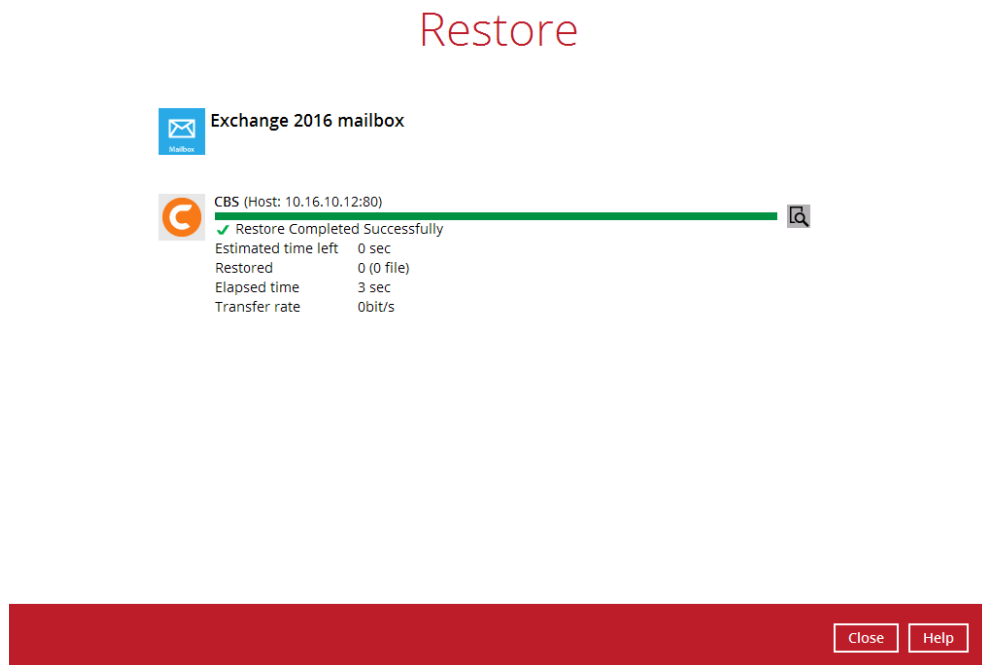
[Previous](#) [Next](#) [Cancel](#) [Help](#)

Please refer to the [Limitation](#) part to check the limitation of restore process.

- ix. Select the temporary directory for storing temporary files, such as delta files when they are being merged, click **Restore** to start the restoration.



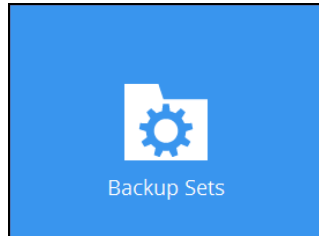
- x. The following screen with the text **Restore Completed Successfully** shows when the restoration is completed.



## 5.2 Database Availability Group (DAG) Backup Option

### 5.2.1 Create Mail Level Backup Set

1. Click the **Backup Sets** icon on the main interface of OBM.



2. Create a new backup set by clicking the “+” icon next to **Add new backup set**.
3. Select the Backup set type as **MS Exchange Mail Level Backup**. The system will automatically detect and select the Exchange Server version, make sure the version selected is correct.
  - ⦿ Select Microsoft Exchange Server version as **Microsoft Exchange Server 2016 (DAG)**
  - ⦿ Name your new backup set.
  - ⦿ Enter the hostname of all the DAG Member Server.
  - ⦿ Enter the username and password of the Windows user account used for backup.
  - ⦿ Check the “Access the Internet through proxy” if required. Then click **Next** to proceed.

## Create Backup Set

Name

Backup set type  
☒ MS Exchange Mail Level Backup ▼

Version

Host (DAG Member Server)

Username

Password

☐ Access the Internet through proxy

4. In the **Backup Source** menu, select the mailboxes or public folders for backup. You can click to expand the according mailbox or public folder to select which mail folder to back up. You can also click **Show mails** to select individual mail to back up. Click **Next** to proceed when you are done.

## Backup Source

| Folders                                        | To                                               | Subject                              | Sent | Size |
|------------------------------------------------|--------------------------------------------------|--------------------------------------|------|------|
| 10.120.6.81                                    | <input checked="" type="checkbox"/> yuklun cheng | Exchange 2016 DAG...10/24/2017 11:42 |      | 12k  |
| Mailboxes                                      |                                                  |                                      |      |      |
| Administrator@xch                              |                                                  |                                      |      |      |
| backupadmin@xch                                |                                                  |                                      |      |      |
| jalin@xch16dag.ah                              |                                                  |                                      |      |      |
| johnnt@xch16dag.                               |                                                  |                                      |      |      |
| steve@xch16dag.a                               |                                                  |                                      |      |      |
| user01@xch16dag                                |                                                  |                                      |      |      |
| user02@xch16dag                                |                                                  |                                      |      |      |
| user03@xch16dag                                |                                                  |                                      |      |      |
| yuk@xch16dag.ah                                |                                                  |                                      |      |      |
| Archive                                        |                                                  |                                      |      |      |
| Calendar                                       |                                                  |                                      |      |      |
| Contacts                                       |                                                  |                                      |      |      |
| Deleted Items                                  |                                                  |                                      |      |      |
| Drafts                                         |                                                  |                                      |      |      |
| Inbox                                          |                                                  |                                      |      |      |
| Junk Email                                     |                                                  |                                      |      |      |
| Notes                                          |                                                  |                                      |      |      |
| <input checked="" type="checkbox"/> Sent Items |                                                  |                                      |      |      |
| Tasks                                          |                                                  |                                      |      |      |
| Public Folders                                 |                                                  |                                      |      |      |

☒ Show mails

Items per page 50 Page 1 / 1

5. In the Schedule menu, you can configure a backup schedule for backup job to run automatically at your specified time interval. Click **Add** to add a new schedule, then click **Next** to proceed when you are done.

The screenshot shows the 'Schedule' configuration window. At the top, the title 'Schedule' is displayed in blue. Below the title, there is a section 'Run scheduled backup for this backup set' with a toggle switch set to 'On'. Underneath, the text 'Existing schedules' is followed by a list of schedules. One schedule is listed: 'Backup Schedule' with a calendar icon and the text 'Daily (Everyday at 22:00)'. Below this list is a grey 'Add' button. At the bottom of the window, there is a blue bar containing four buttons: 'Previous', 'Next', 'Cancel', and 'Help'.

**Note:** By default, a daily backup scheduled for 22:00 is created automatically.

6. In the Destination menu, select a backup destination where the backup mail will be stored. Click the “+” icon next to **Add new storage destination / destination pool**.

The screenshot shows the 'Destination' configuration window. At the top, the title 'Destination' is displayed in blue. Below the title, there is a section 'Backup mode' with a dropdown menu set to 'Sequential'. Underneath, the text 'Existing storage destinations' is followed by a list of destinations. One destination is listed: '+ Add new storage destination / destination pool' with a plus icon. Below this list are two small icons: a triangle pointing up and a triangle pointing down. At the bottom of the window, there is a blue bar containing four buttons: 'Previous', 'Next', 'Cancel', and 'Help'.

7. Select the destination type and destination storage, then click **OK** to proceed.

The screenshot shows a window titled "New Storage Destination / Destination Pool". It contains the following fields and options:

- Name:** A text input field containing "CBS".
- Type:** Two radio button options: "Single storage destination" (selected) and "Destination pool".
- Destination storage:** A dropdown menu showing "CBS" with a small downward arrow.

At the bottom right, there are three buttons: "OK", "Cancel", and "Help".

8. Click **Next** on the Destination menu page to proceed.

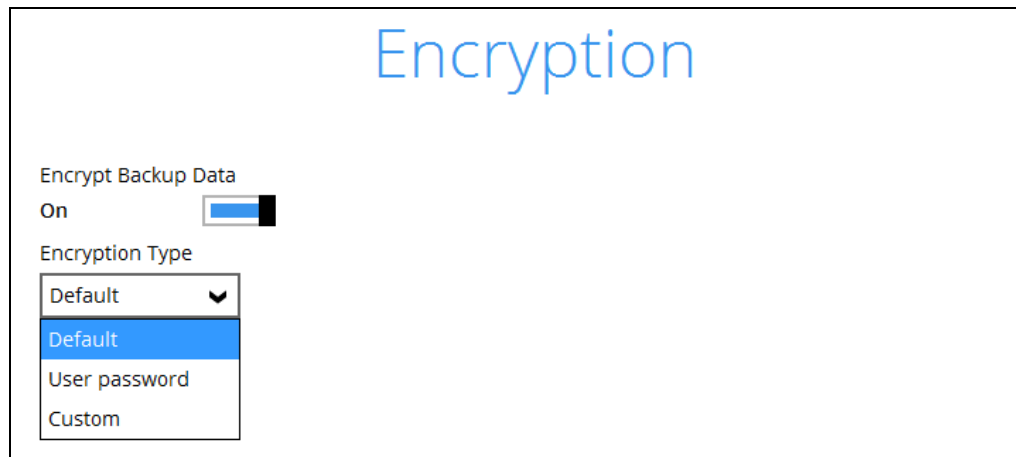
The screenshot shows a window titled "Destination". It contains the following fields and options:

- Backup mode:** A dropdown menu showing "Sequential" with a small downward arrow.
- Existing storage destinations:** A list showing one entry: "CBS" with a host address "Host: 10.3.1.8:443". Below the list is an "Add" button and two small upward/downward arrow icons.

At the bottom right, there are four buttons: "Previous", "Next", "Cancel", and "Help".

9. In the Encryption window, the default **Encrypt Backup Data** option is enabled with an encryption key preset by the system which provides the most secure

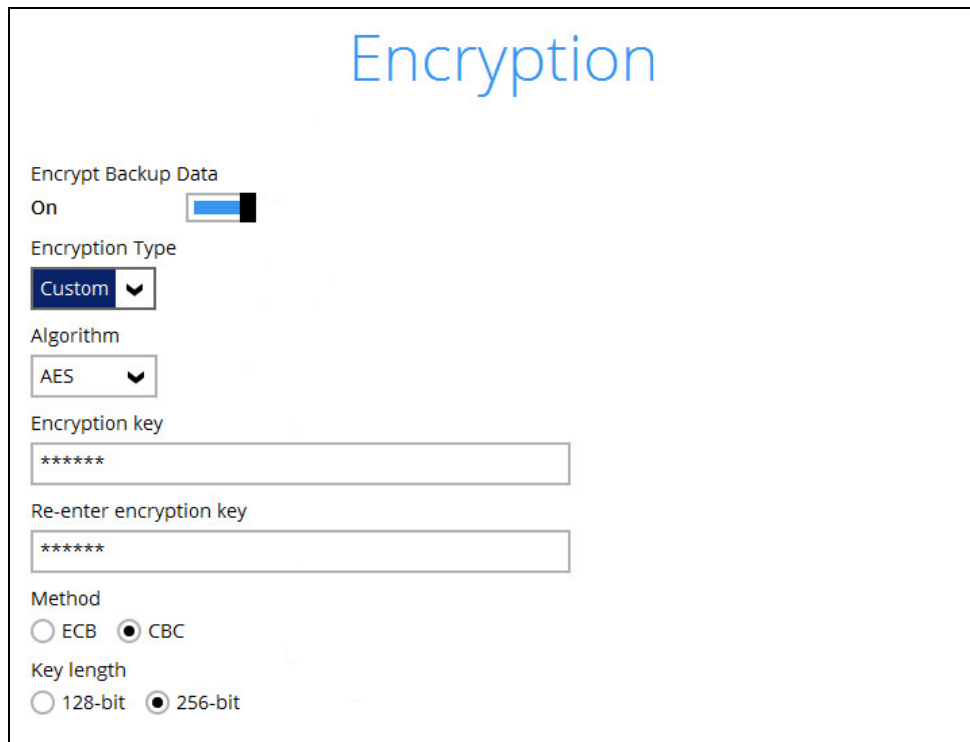
protection.



The screenshot shows a window titled "Encryption". Inside, there is a section "Encrypt Backup Data" with a toggle switch set to "On". Below this is the "Encryption Type" dropdown menu, which is currently open, showing three options: "Default" (selected), "User password", and "Custom".

10. You can choose from one of the following three Encryption Type options:

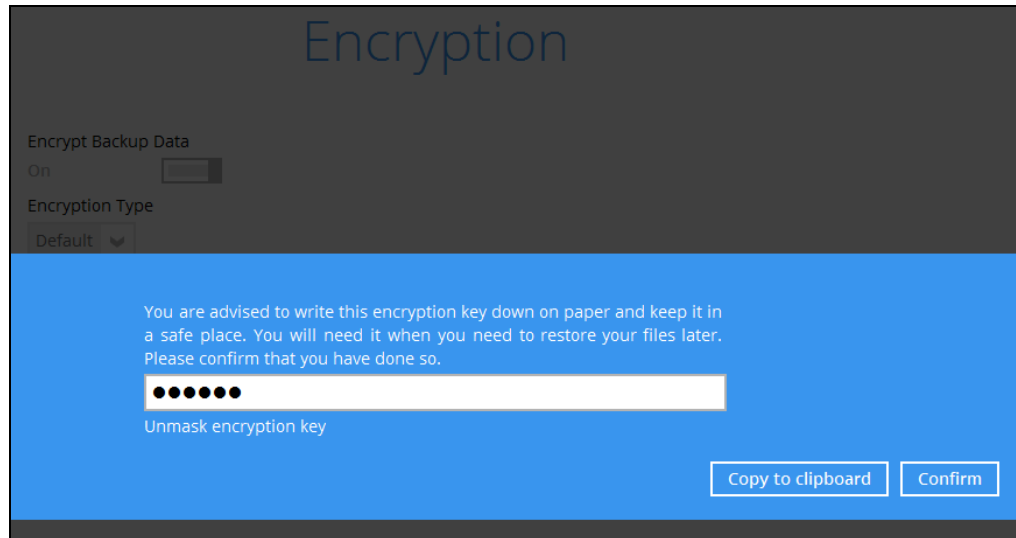
- **Default** – an encryption key with 44 alpha numeric characters will be randomly generated by the system
- **User password** – the encryption key will be the same as the login password of your OBM at the time when this backup set is created. Please be reminded that if you change the OBM login password later, the encryption keys of the backup sets previously created with this encryption type will remain unchanged.
- **Custom** – you can customize your encryption key, where you can set your own algorithm, encryption key, method and key length.



The screenshot shows the "Encryption" window with the "Custom" option selected in the "Encryption Type" dropdown. Below this, the "Algorithm" dropdown is set to "AES". There are two text input fields for the "Encryption key", both containing "\*\*\*\*\*". At the bottom, there are radio buttons for "Method" (ECB and CBC, with CBC selected) and "Key length" (128-bit and 256-bit, with 256-bit selected).

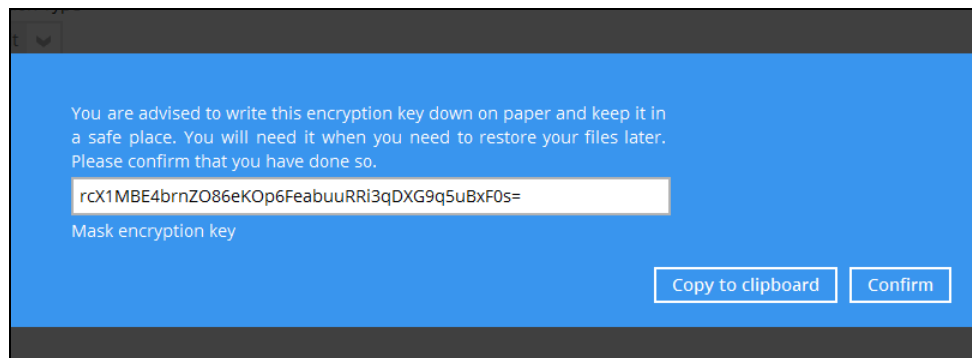
Click **Next** when you are done setting.

11. If you have enabled the Encryption Key feature in the previous step, the following pop-up window shows, no matter which encryption type you have selected.



The pop-up window has the following three options to choose from:

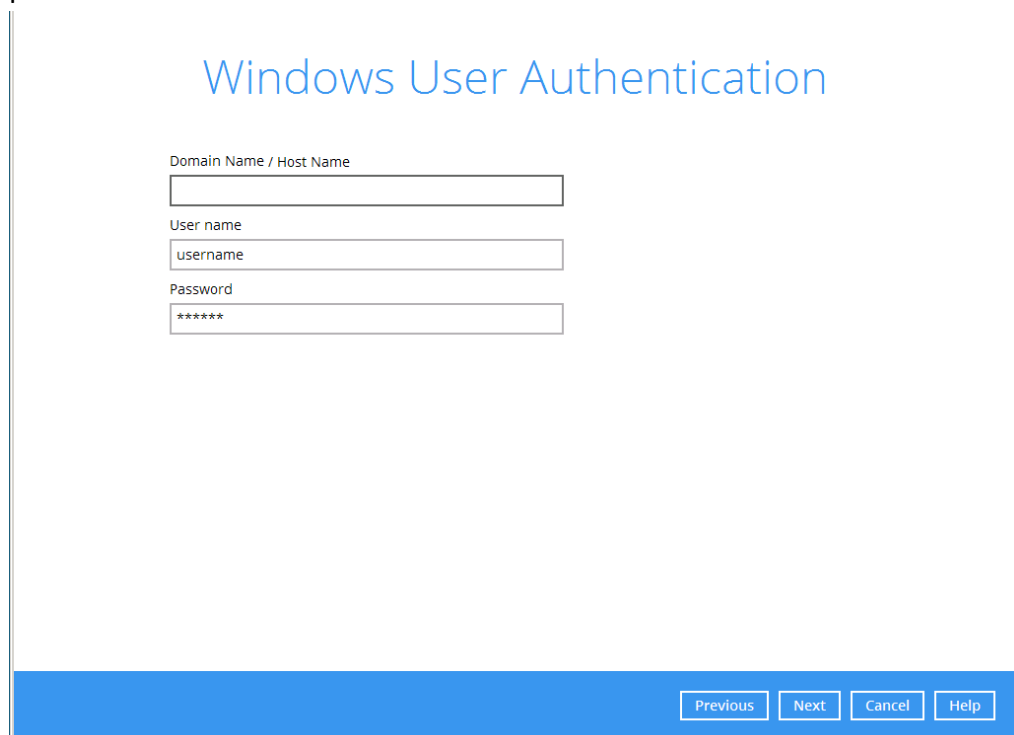
- **Unmask encryption key** – The encryption key is masked by default. Click this option to show the encryption key.



A blue pop-up window with a dark grey header and footer. The main area is blue and contains the following text: "You are advised to write this encryption key down on paper and keep it in a safe place. You will need it when you need to restore your files later. Please confirm that you have done so." Below this text is a text input field containing the encryption key: "rcX1MBE4brnZO86eKOp6FeabuuRRI3qDXG9q5uBxF0s=". Below the input field is the label "Mask encryption key". At the bottom right, there are two buttons: "Copy to clipboard" and "Confirm".

- **Copy to clipboard** – Click to copy the encryption key, then you can paste it in another location of your choice.
- **Confirm** – Click to exit this pop-up window and proceed to the next step

12. Enter the Windows login credentials for user authentication. Click **Next** to proceed.

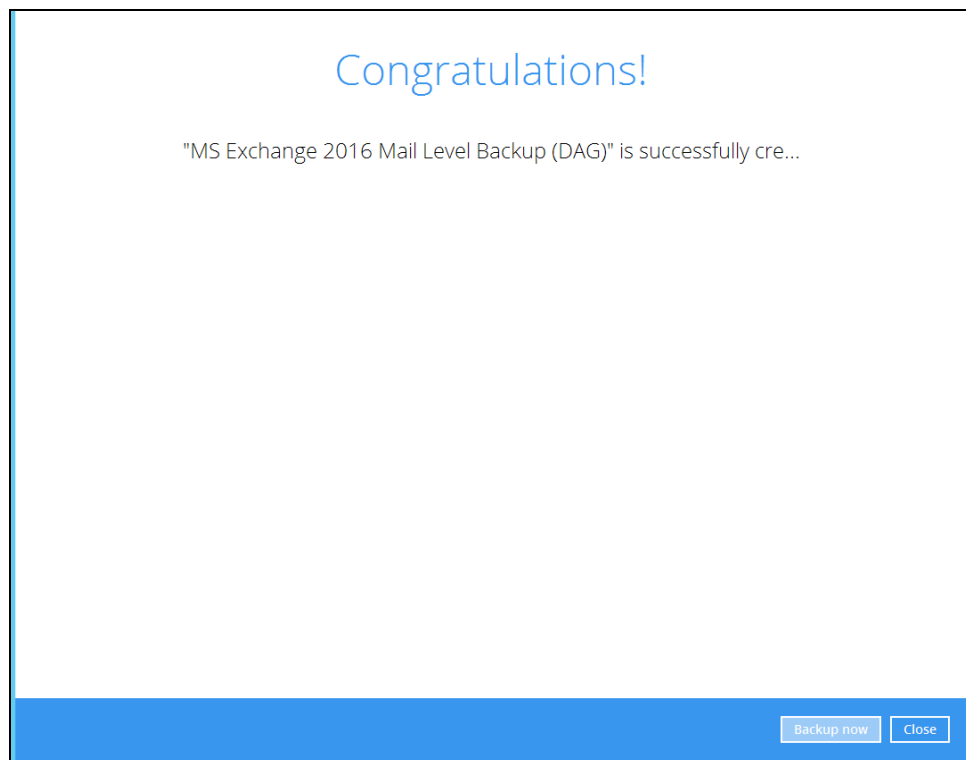


A window titled "Windows User Authentication" with a light blue header. The main area is white and contains three input fields: "Domain Name / Host Name", "User name" (with "username" entered), and "Password" (with "\*\*\*\*\*" entered). At the bottom, there is a blue bar with four buttons: "Previous", "Next", "Cancel", and "Help".

### Note

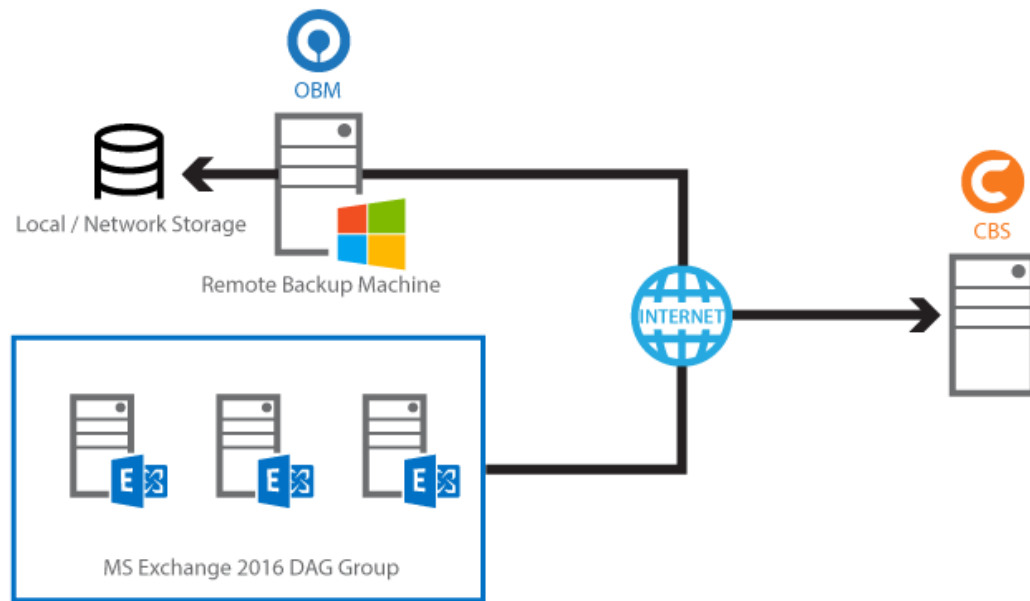
The Windows User Authentication interface will show only if scheduled backup is enabled and set successfully.

13. The following screen shows when the new backup set is created successfully.



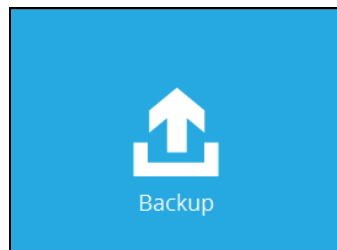
14. Click Backup now to start a backup immediately.

### 5.2.2 Run Mail Level Backup Job

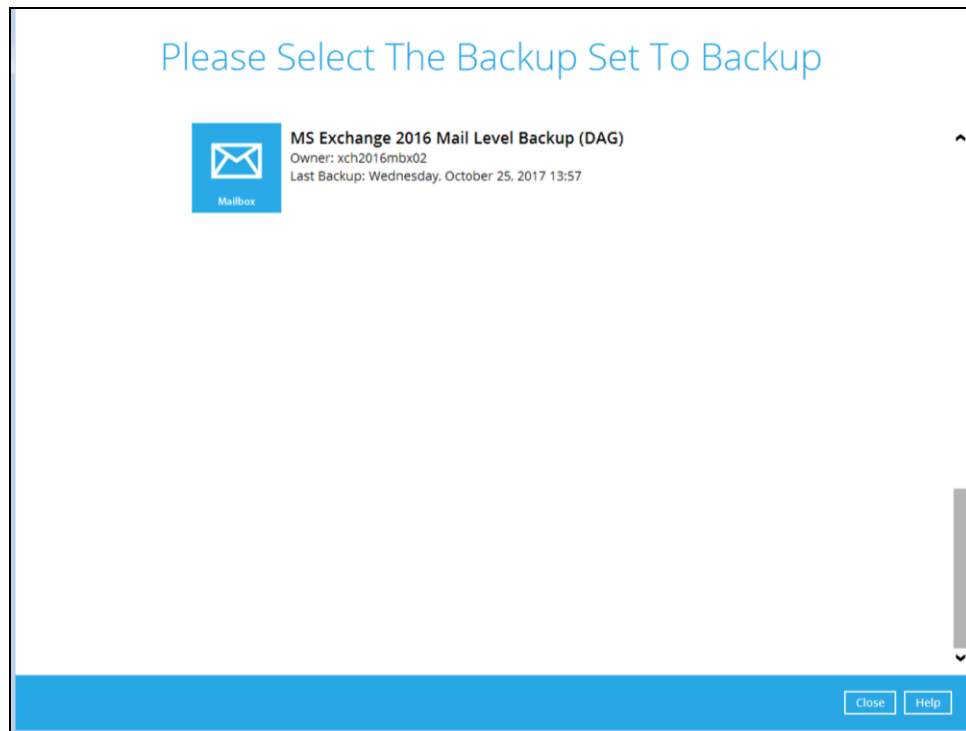


Below are the steps of backup process.

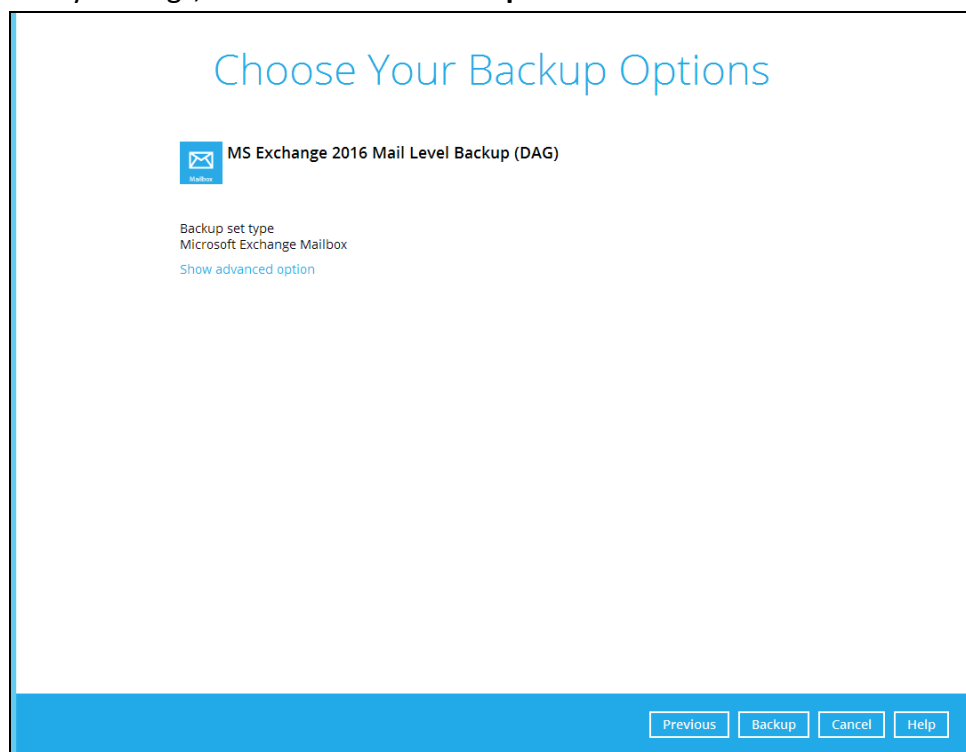
1. Log in to OBM.
2. Click the Backup icon on the main interface of OBM.



3. Select the backup set which you would like to start a backup for.



4. If you would like to modify the In-File Delta type, Destinations and Retention Policy settings, click **Show advanced option**.



## Choose Your Backup Options

 **MS Exchange 2016 Mail Level Backup (DAG)**

Backup set type  
Microsoft Exchange Mailbox

In-File Delta type  
☐ Full  
☐ Differential  
☒ Incremental

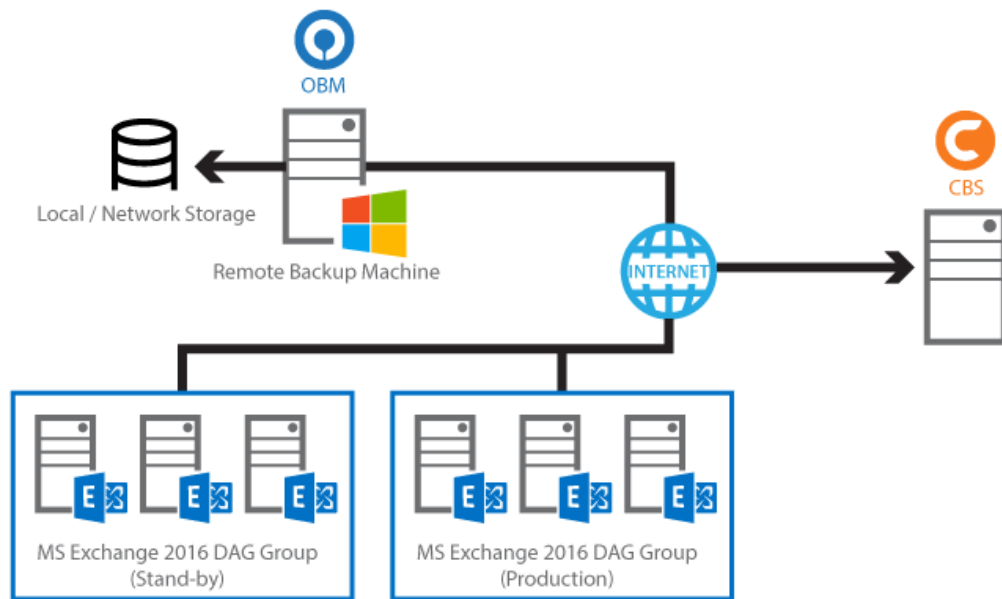
Destinations  
☒  CBS (Host: 10.120.10.12:443)

Retention Policy  
☐ Run Retention Policy after backup  
[Hide advanced option](#)

PreviousBackupCancelHelp

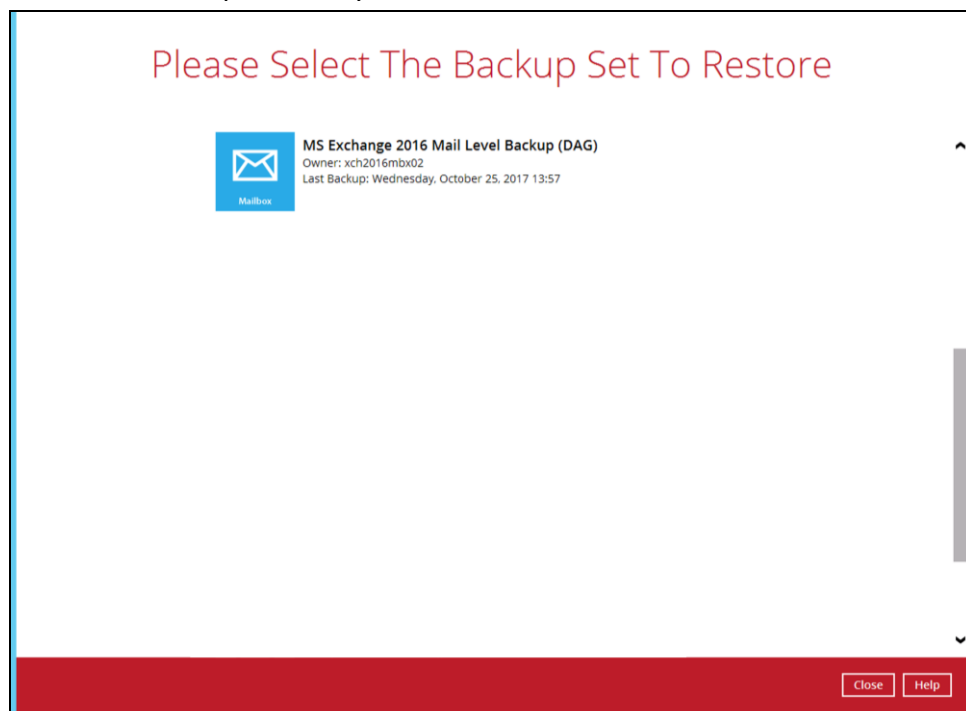
5. Click **Backup** to start the backup.

### 5.2.3 Restore Mail Level Backup



Below are the steps of restore process.

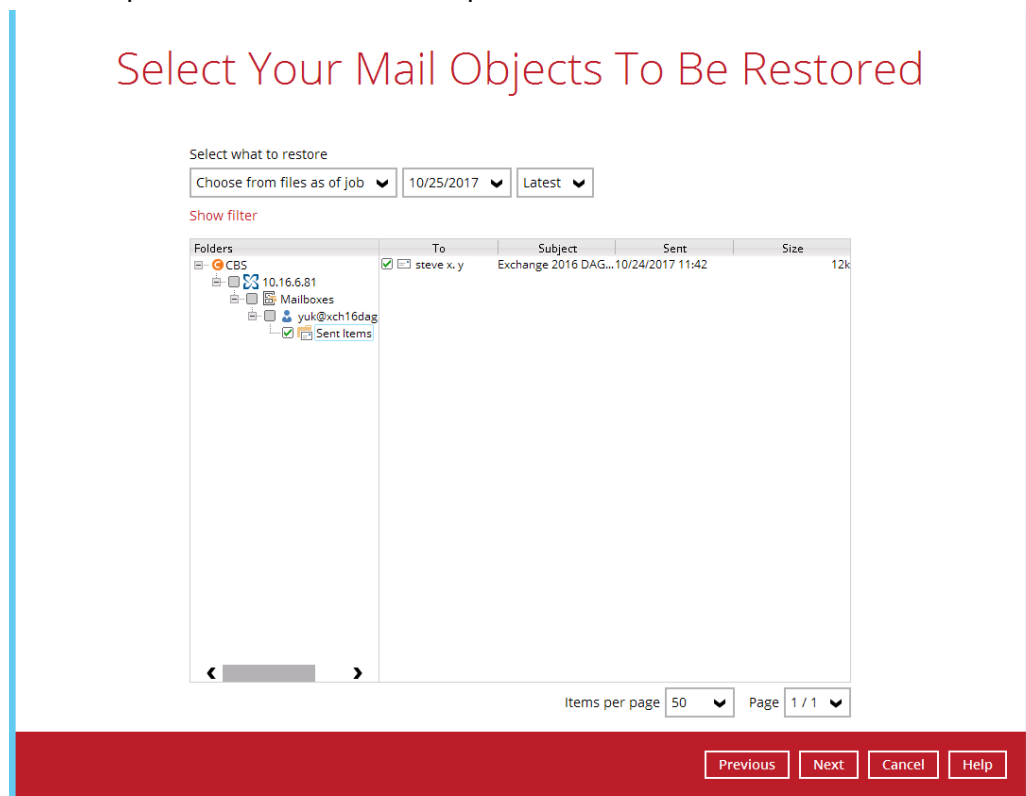
1. In the OBM main interface, click the **Restore** icon.
2. Select the backup set that you would like to restore mail from.



3. Select the backup destination that contains the mail(s) that you would like to restore.



4. Click to expand the menu tree to select which mailbox to restore. You can also select mail item(s) from a specific backup job or all mail items that you have backed up to restore. Click **Next** to proceed.



5. Select to restore the mail to their Original mailbox, or to an Alternate mailbox.

• **Restore to Original Mailbox**

Select the **Original location** option, then press **Next** to proceed.

Choose Where The Mail Objects To Be Restor...

Restore mail objects to

☒ Original location

☐ Alternate location

Administrator@x2k16.local

Previous Next Cancel Help

• **Restore to Alternate Mailbox**

You can choose to restore mailbox item(s) to another mailbox in the same Exchange server. Select the **Alternate location** option and the desired mailbox destination, then press **Next** to proceed.

In addition, you can also restore mailbox item(s) to a different Exchange server of the same version. In this case, the restoration should be

triggered by the OBM on the destination Exchange server.

## Choose Where The Mail Objects To Be Restor...

Restore mail objects to

☐ Original location

☒ Alternate location

Administrator@x2k16.local

Administrator@x2k16.local

backup1@x2k16.local

backupadmin@x2k16.local

baxter@x2k16.local

bk@x2k16.local

c1@x2k16.local

jalin.li@x2k16.local

operator1@x2k16.local

Previous Next Cancel Help

6. Select the temporary directory for storing temporary files, such as delta files when they are being merged, click **Restore** to start the restoration.

## Temporary Directory

Temporary directory for storing restore files

C:\Users\Administrator\obm\temp

Browse

Previous Restore Cancel Help

7. The following screen with the text **Restore Completed Successfully** shows when the restoration is completed.

