Altaro Hyper-V Backup - Getting Started

System Requirements

Supported Host Operating Systems:

Altaro Hyper-V Backup:

- Windows 2008 R2 (all editions)
- Windows 2008 R2 SP1
- Windows Hyper-V Server 2008 R2 (core installation)
- Windows Server 2012 (all editions)
- Windows Hyper-V Server 2012 (core installation)

Please note that Altaro Hyper-V Backup needs to be installed on the Hyper-V Host (not within the guest).

Altaro Management Tools:

- Windows 2008 R2 (all editions)
- Windows 2008 R2 SP1
- Windows Server 2012 (all editions)
- Windows 7 (64-Bit)
- Windows 8 (64-Bit)

Altaro Backup Server:

- Windows 2008 R2 (all editions)
- Windows 2008 R2 SP1
- Windows Hyper-V Server 2008 R2 (core installation)
- Windows Server 2012 (all editions)
- Windows Hyper-V Server 2012 (core installation)
- Windows 7 (64-Bit)
- Windows 8 (64-Bit)

Required Specifications:

Altaro Hyper-V Backup:

- 128 MB RAM
- 100 MB Hard Disk Space (for Altaro Hyper-V Backup Program and Settings files)
- MS .NET Framework 3.5 on Windows Server 2008 R2
- MS .NET Framework 4.0 on Windows Server 2012

Altaro Backup Server:

- Minimum of i5 (or equivalent) processor
- 75 MB RAM + an additional 75MB for each concurrent backup/restore.
  (For example if running 3 concurrent backups then minimum requirement is 75MB (base) + 75MB + 75MB + 75MB = Total 300 MB RAM)

Communication Ports:

Below is a list of the default TCP ports used by our software and their purpose. All these ports must be allowed.

TCP Ports	Description
35100	Communication with the Remote Management Console
35101 - 35105	Communication with the Altaro Backup Server
24251 - 24252	Communication between agents on the same cluster
24253	Communication from the Remote Management Console to Agent

Supported Backup Destinations

Altaro Hyper-V Backup supports backing up to:

- o USB External Drives
- o eSata External Drives
- o USB Flash Drives
- o Fileserver Network Shares using UNC Paths
- o NAS devices (Network Attached Storage) using UNC Paths
- o PC Internal Hard Drives (recommended only for evaluation purposes)
- o RDX Cartridges

Installing Altaro Hyper-V Backup

If you do not have a copy of the installer for Altaro Hyper-V Backup please obtain a copy from http://www.altaro.com/hyper-v-backup/download-trial.php before following this tutorial.

1. Launch the downloaded file: **altarohypervbackupsetup.exe**. On certain Operating Systems you may receive a warning informing you that certain downloads may be unsafe. Altaro Hyper-V Backup is signed using Altaro's digital signature and therefore this warning can be ignored.

2. Next you will be presented with the welcome screen of the installer. Simply click [Next].
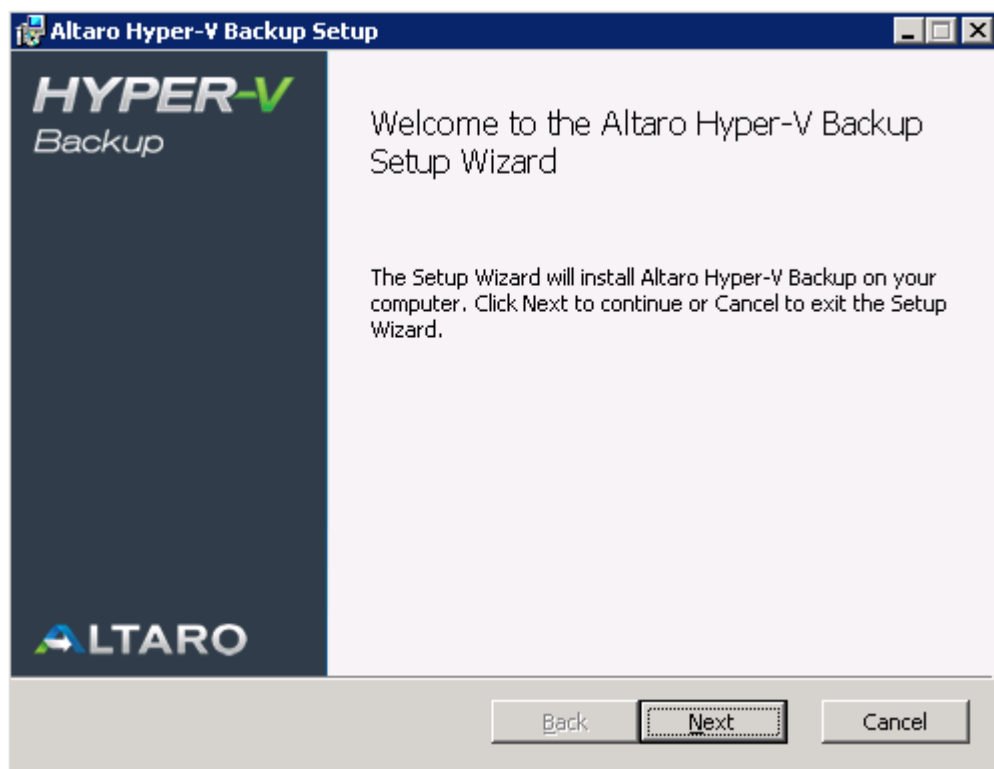

3. You will now see the End User License Agreement into which you will enter with Altaro Ltd. Please read through the agreement and check the "I Accept..." checkbox. Once you have agreed to the terms and conditions in the EULA you can press [NEXT].
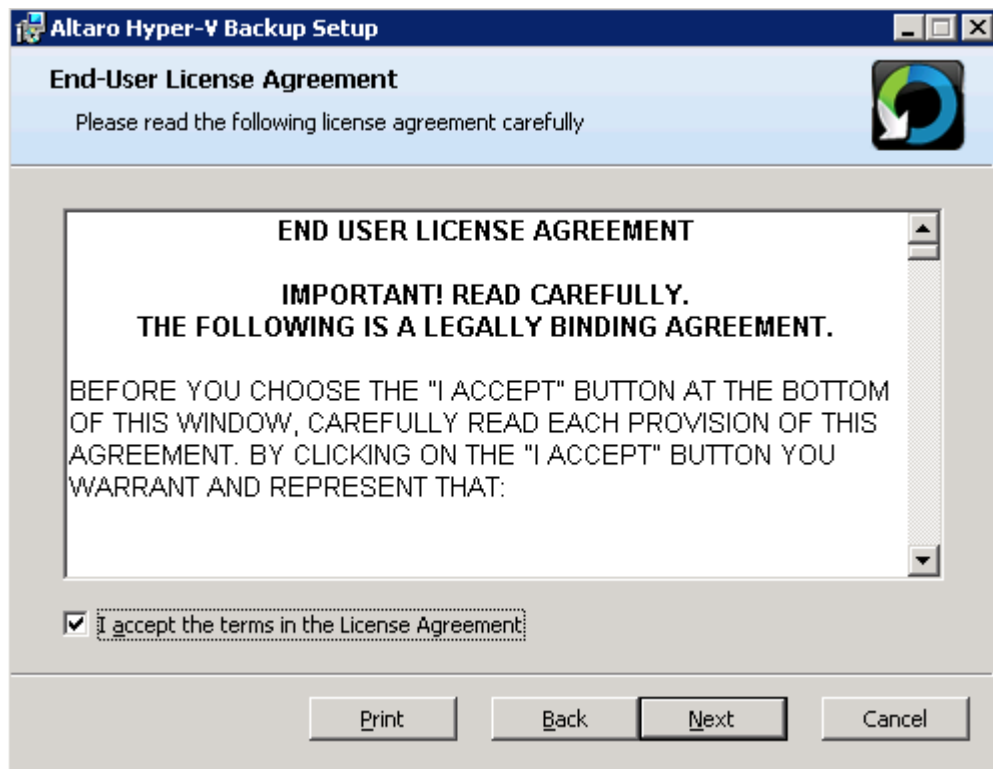
4. At this point you will be prompted for the Destination Folder of the installation.   In most normal cases you should leave the installation path as default.   Altaro Hyper-V Backup will be installed within your Program Files folder.
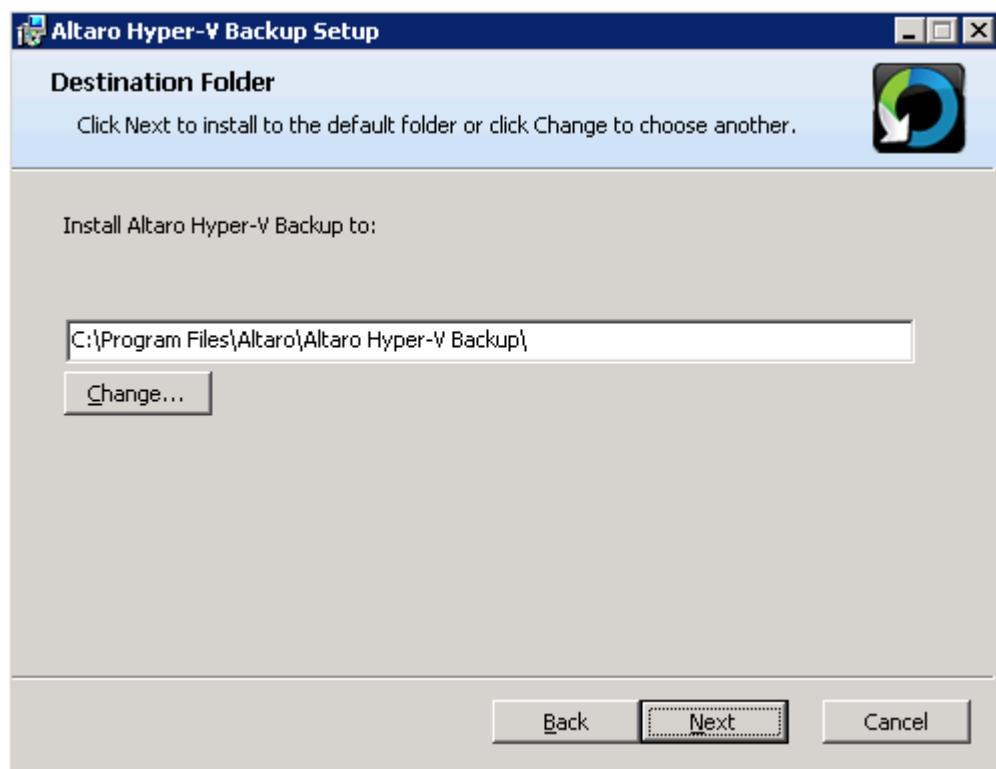
5. Next you will see a screen asking you for confirmation to install.   Please press [Install].
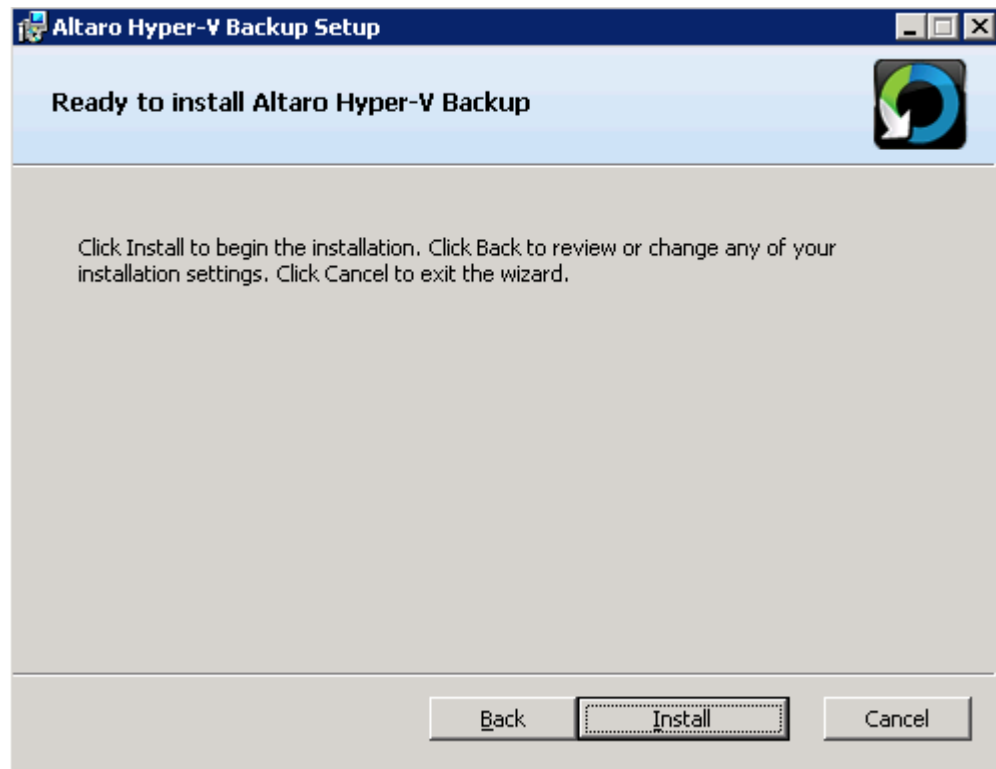
6. At this point the installation will begin.   You will be presented with a progress bar updating you with the progress of the installation.   Installation should only take a few seconds.   **Please note that if you have UAC enabled on the Server then a UAC prompt may be displayed**.   Please click allow for the installation to complete.   UAC is required for the following reasons:

    - Files are being copied to the Program Files Folder.

    - A Windows Service is being installed.

7. Once the installation is done you will be presented with the successful installation screen.   A checkbox is displayed and checked by default indicating whether the **Management Console** should be launched automatically.
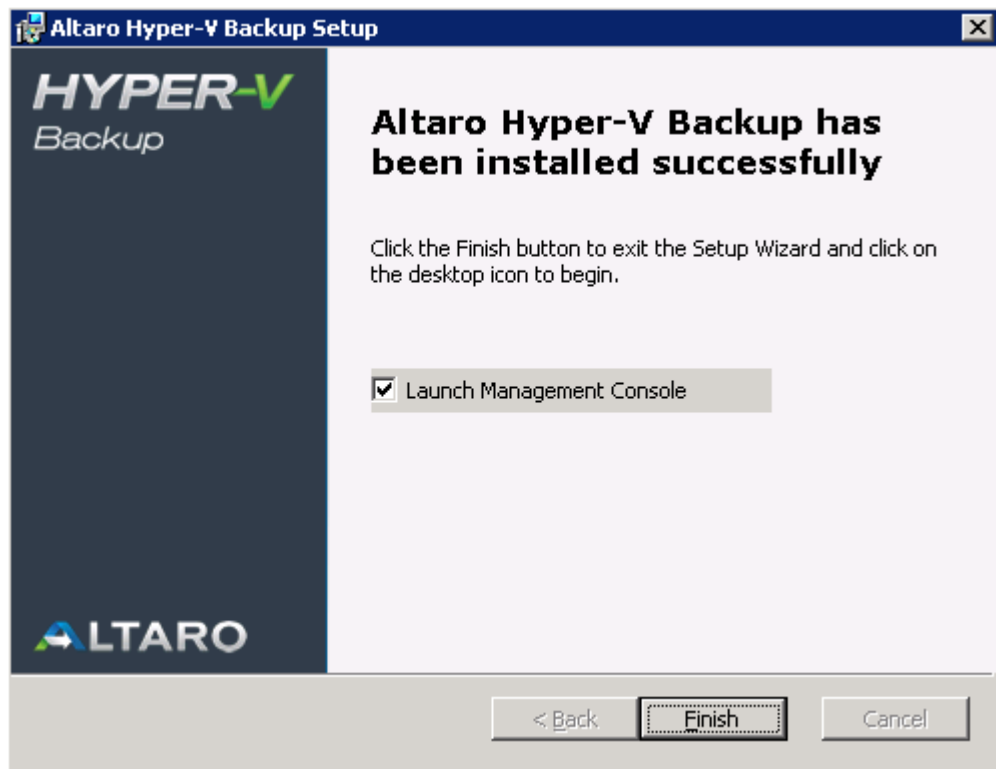
Should a screen informing you that the installation has failed appear please contact support.

8. Finally the Altaro Hyper-V Backup Management Console will appear. Please click here for a tutorial on configuring your Backup Profile.

Entering the License Key

Once you order Altaro Hyper-V Backup you will receive an email containing your unique License Key.   The License Key is a block of letters.

To enter your license key please follow these steps:

1. Launch the Altaro Hyper-V Backup **Management Console**.

2. Click '**Tools'** >> **'Enter License Key...**' from top right menu:
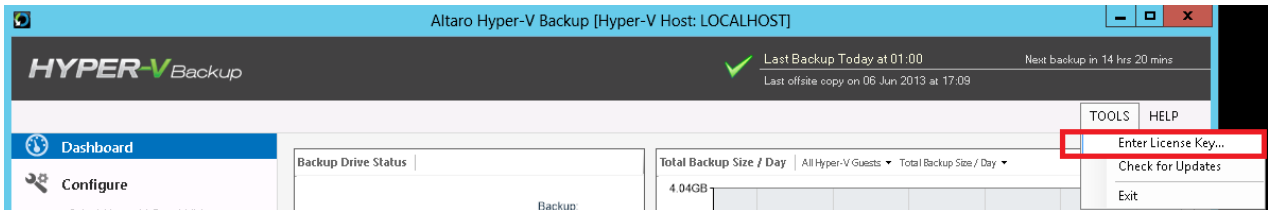
3. Next the license key window will appear as shown below.

4. Now open the email that contains your License Key.   Once you select the License Key, right-click on it and select Copy.

5. Go back to the License Key window, right-click on the white text box and select Paste.

6. Click the button [Verify License Key] to verify your License Key. Once verified the window will change to confirm that the License Key was accepted by thanking you for purchasing the product.

Additional Steps when running under a Hyper-V Cluster Environment:

If a Cluster Environment is detected, then in the steps above, instead of the [Verify License Key] button you will see a [Choose Nodes...] button.   This button will bring up the following Window which facilitates the licensing of each Node in the cluster.

Simply use the checkboxes in the list to identify which Nodes you would like to license.   The number of Nodes allowed is dependent on the number of activations allowed by the License Key.
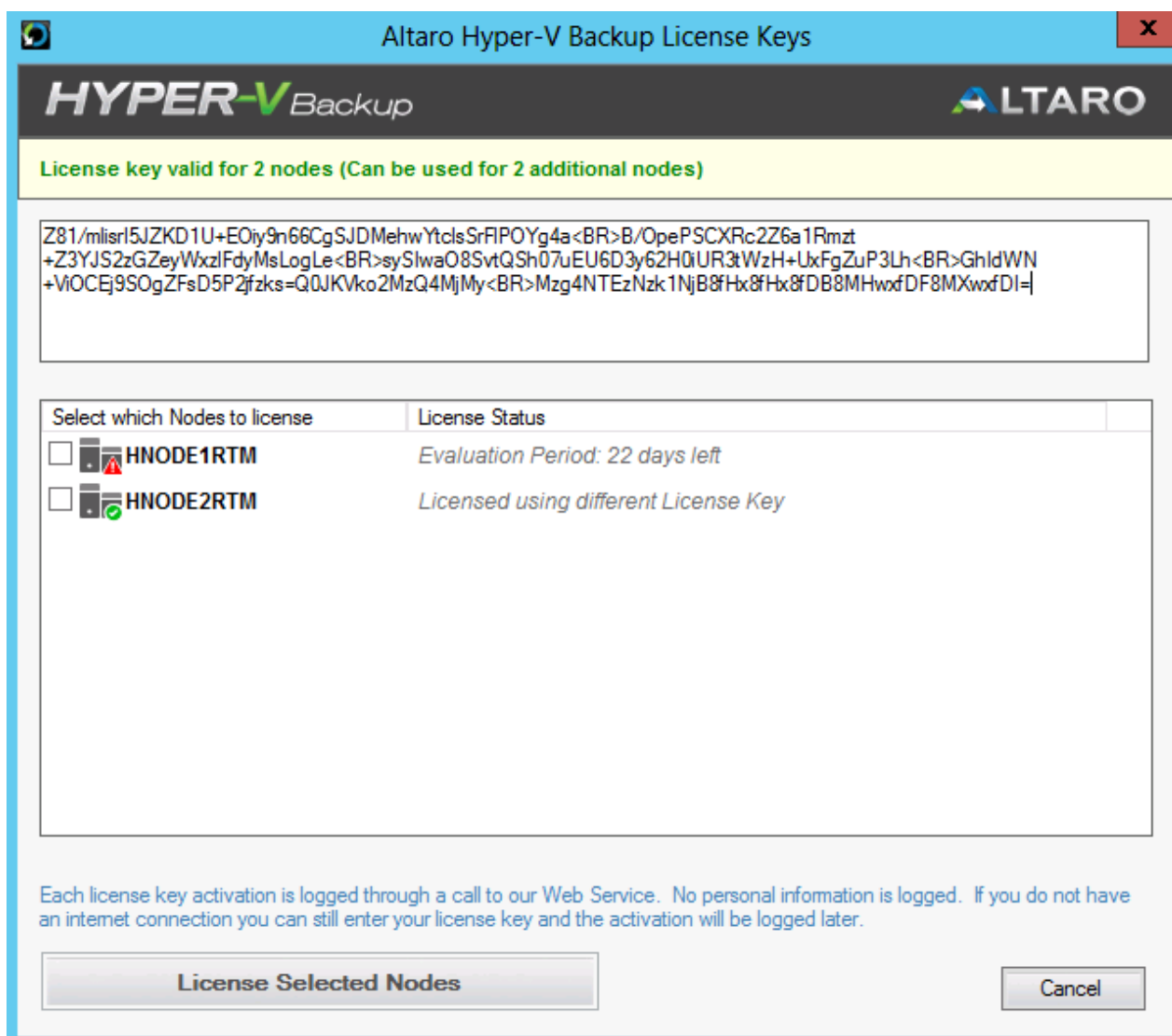
Configuration - Quick Start

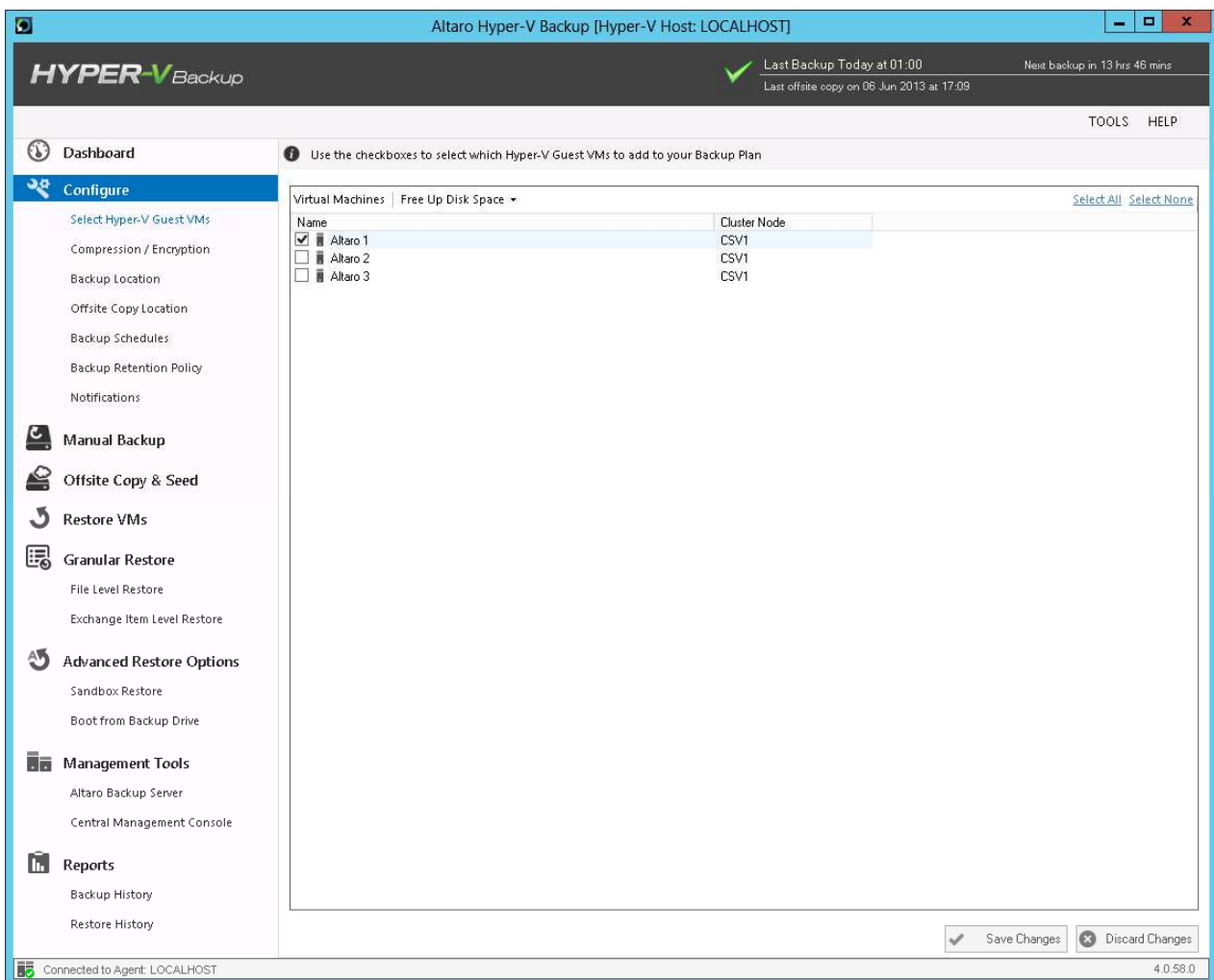**Installing Altaro Hyper-V Backup in a Hyper-V Cluster (CSV) Environment**

Instructions for setting up Altaro Hyper-V Backup within a Cluster Environment

Altaro Hyper-V Backup First Run

Note: At any point during the evaluation you will be able to enter a License Key to activate a Hyper-V Backup Edition.   If you choose not to purchase the software then you can activate the free Express Edition at the end of the Evaluation period.   Read instructions on entering your license key here.

The first time that you run Altaro Hyper-V Backup the **Management Console** will launch into a special configuration mode.   This will help you to:

1. Select which Hyper-V Guest VMs you would like to backup.   Read instructions here.
2. Select which Backup Drive to back up to.   Read instructions here.
3. Enable and disable backup and restore notifications.   Read instructions here.

Opening the Management Console

The **Management Console** is opened automatically after you first install **Altaro Hyper-V Backup**.

After this you can launch it easily using one of the following methods:

- Clicking on the **Altaro Hyper-V Backup** item within the *"Start Menu > All Programs > Altaro"* group.
- Launching "Altaro Hyper-V Backup.exe" application from the install location.   By default this is *"C:\Program Files\Altaro\Altaro Hyper-V Backup"*.
- Enter the command **STARTALTARO** into a command prompt window.   This may not work immediately after first install until you log out and in to the Server due to the Environment Variables not being refreshed.
- If the **Management Console** is already running in the background simply double click on the Altaro Hyper-V Backup System Tray icon.

Choosing VMs to back up

To select which Hyper-V Guest VMs to backup simply open the **Management Console** and select the option **[Select Hyper-V Guest VMs]** from the left hand side main menu.

Read instructions on how to open the Management Console here.
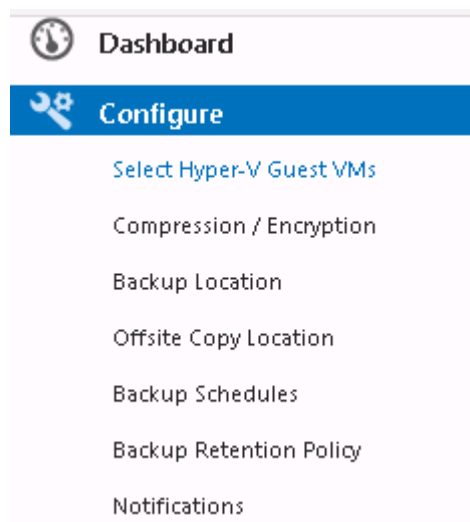
1.   Once you select "Step 1" you will be presented with the following panel:
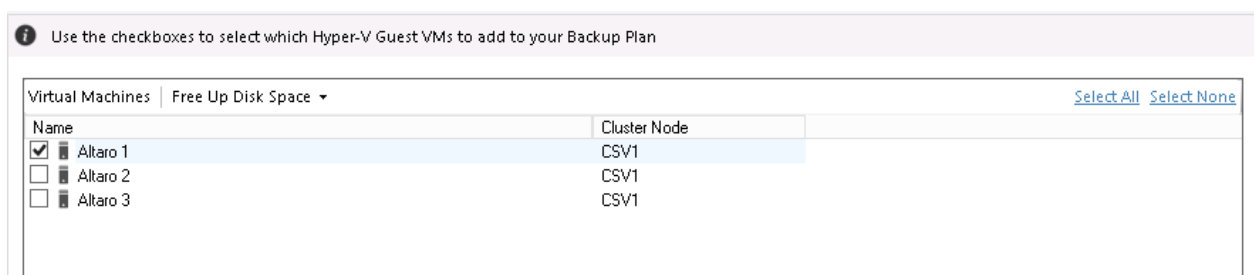
2.   Simply use the checkboxes to select which Hyper-V Guest VMs you would like to add to your backup plan.

-         You can return to this screen at any time to add / remove Hyper-V Guest VMs.

-         The selected VMs will not be backed up automatically until you setup a backup schedule or take a manual backup.

-         Hyper-V Guests that have been deleted from the Hyper-V Host but have already been backed up will continue to show up in this list.

3.   Once the selections have been made simply click on '**Save Changes'** to update your backup plan.

Selecting VMs on another Node within the Cluster:

If you wish to select VMs for backup which are currently hosted upon another Node within the cluster, you simply select them using the same steps above. The user interface will be a bit different within a cluster environment and you can read further instructions here.

You must have first configured Altaro Hyper-V correctly for Cluster Support as explained here.

Selecting Backup Drive

To select a drive or network path as your backup destination, open the **Management Console** and select the option '**Backup Location'** from the left hand side menu.

Read instructions on how to open the Management Console here.
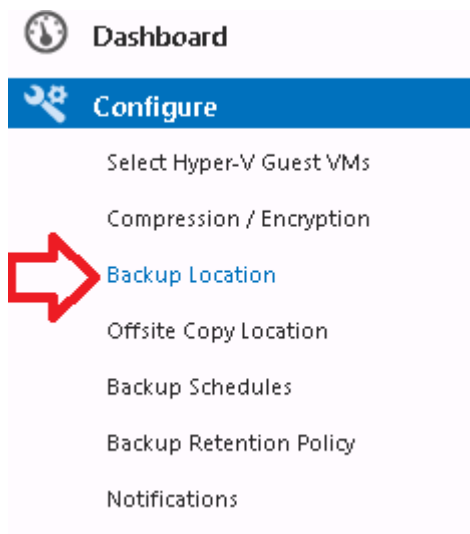
Your current backup drive will be shown on the right, to change it click **'Change Selected Drive'** and you will be presented with the following prompt:
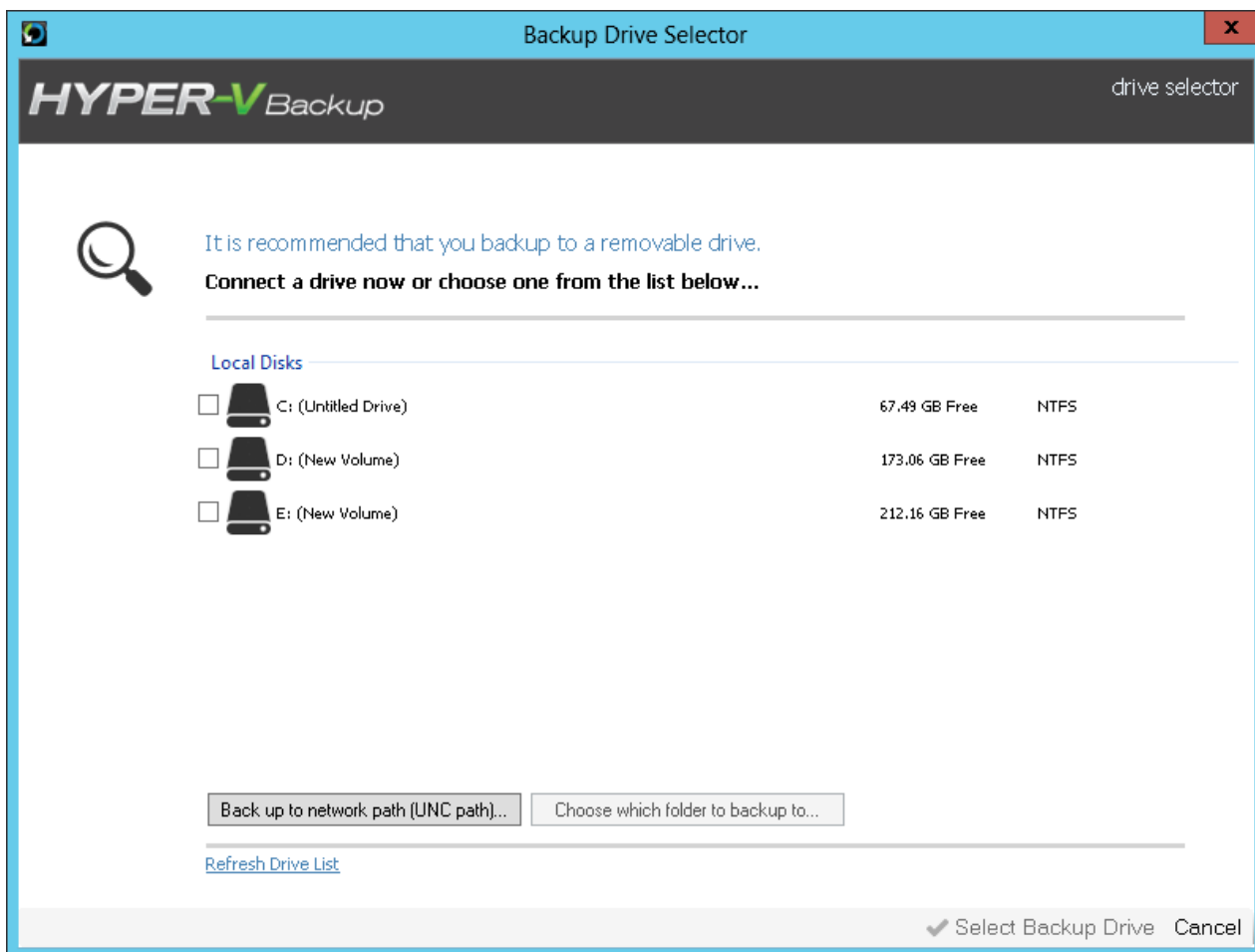
2.	Here, select your backup drive from the list and click **'Select Backup Drive'** to complete.

  -	For instructions on configuring a backup drive click here.
  -	For instructions on backing up to UNC network paths click here.

3.	Once the selections have been made there is no need to click save as changes are saved automatically.

Selecting a Backup Drive within a Cluster Environment:

An additional step is required to share the backup drive with any Altaro Agents upon other nodes as explained here.

Selecting Offsite Copy Location

To select an Altaro Backup Server or a local or network path as your Offsite backup destination, open the **Management Console** and select the option '**Offsite Copy Location'** from the left hand side menu.

Read instructions on how to open the Management Console here.
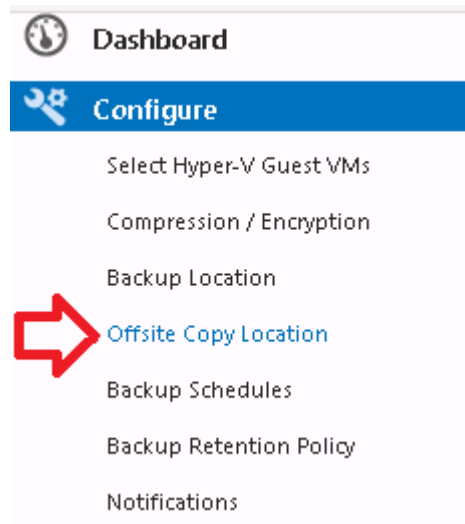
On the right hand side you will be shown a screen allowing you to choose what option you would like for your offsite copies as below:
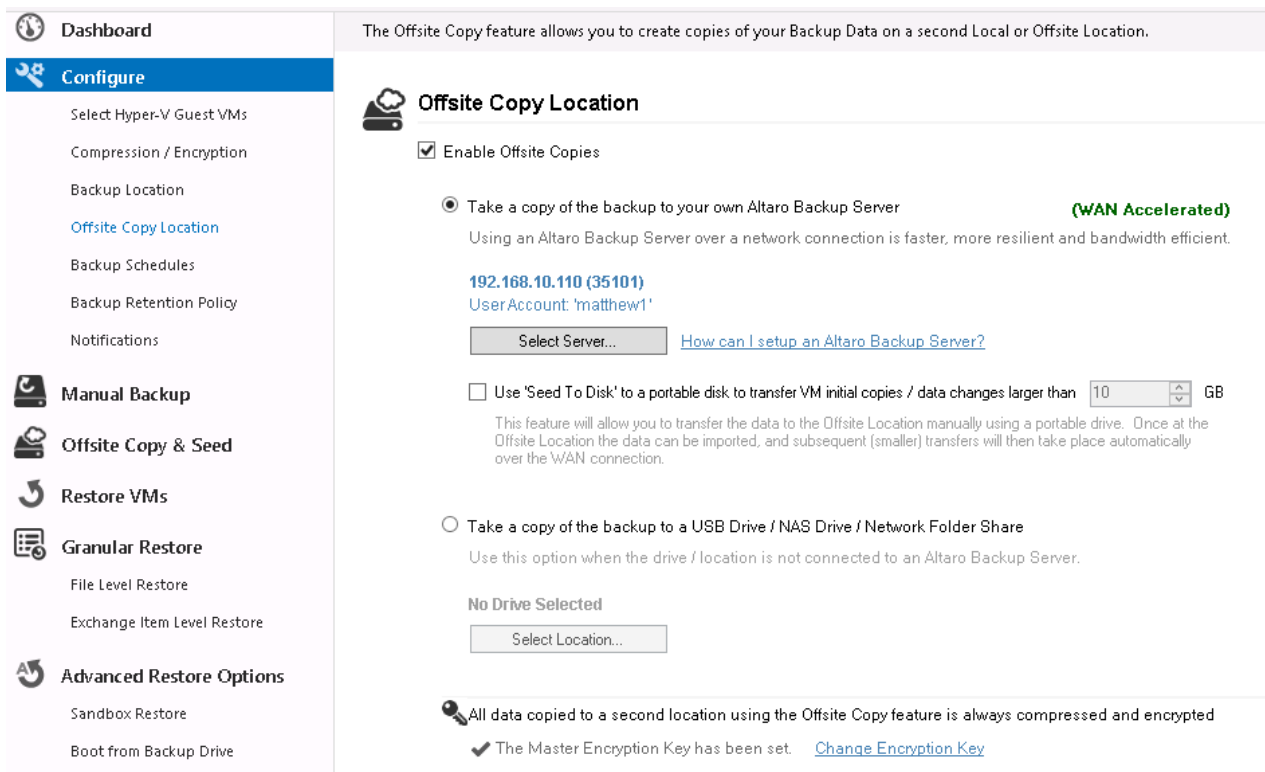
Offsite Copy to an Altaro Backup Server

To back up to an offsite Altaro Backup Server, select the first option called "**Take a copy of the backup to your own Altaro Backup Server**"

Then Click the **'Select Server'** button and you will be prompted to enter the details of your Altaro Backup server as below:

Enter the details of your Altaro Backup server and click **OK**

For more information about configuring an Altaro Backup Server click here

Once you have selected your server, you must also configure an Encryption key for your offsite backups. To do so, click the **'Change Encryption Key'** link at the bottom of the screen.

You'll be prompted for an encryption key and a confirmation, then click **OK**

Click **Save Changes** to complete

Offsite Copy to a Local Drive / NAS / Network Share

To back up to an offsite Altaro Backup Server, select the second option called "**Take a copy of the backup to a USB Drive / NAS Drive / Network Folder Share**"

Then Click the **'Select Location'** button and you will be prompted to choose your offsite backup location as below:
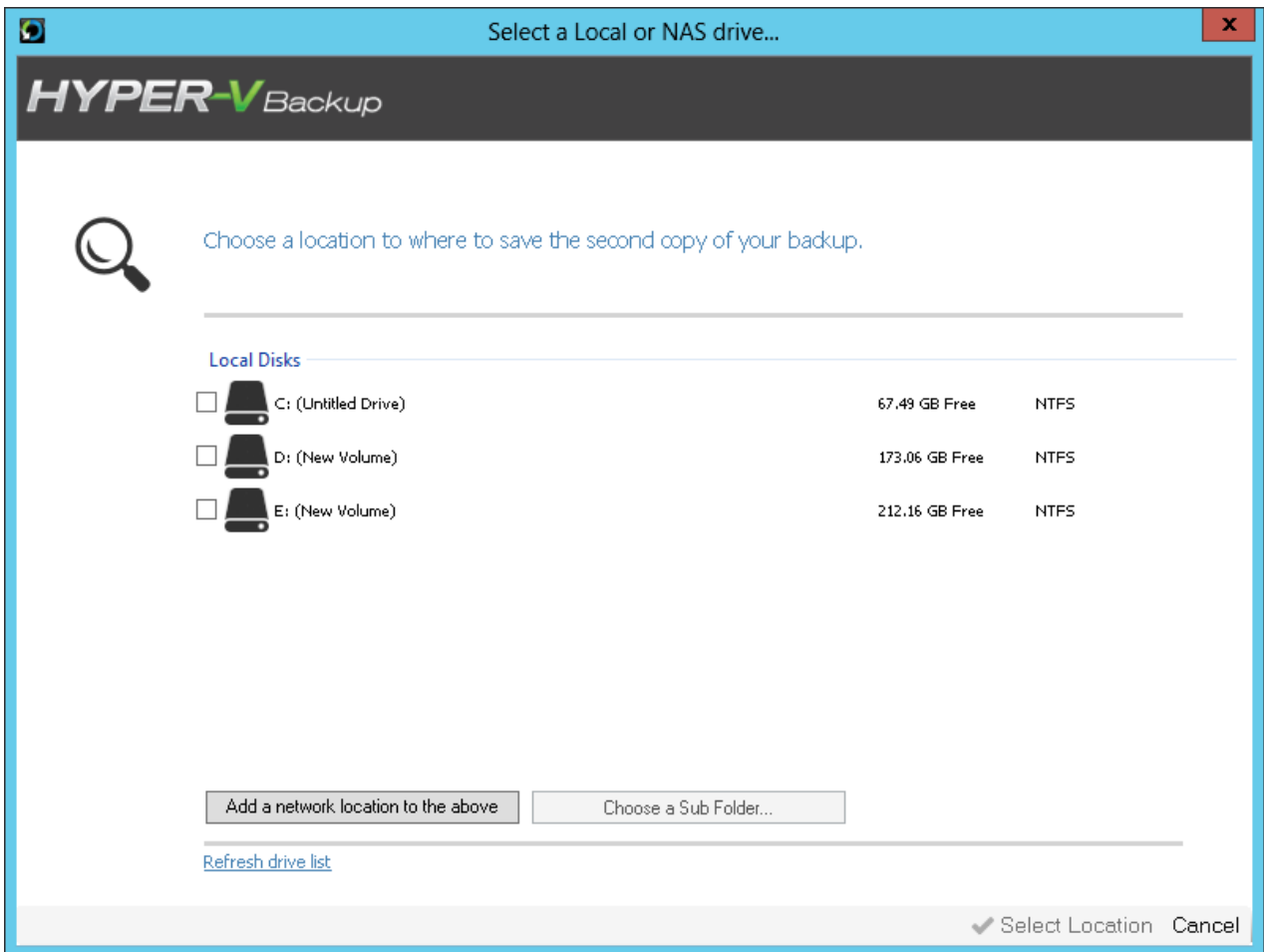
Here (as with the regular Backup Location) you can choose a local or network location to take a copy of your backup to.

Scheduling VM Backups

To schedule automatic backups for the selected VMs you need to create a number of Schedule Groups and add the VMs to them. To do this simply open the **Management Console** and select the option "**Backup Schedules"** from the left hand side main menu.

Read instructions on how to open the Management Console here.

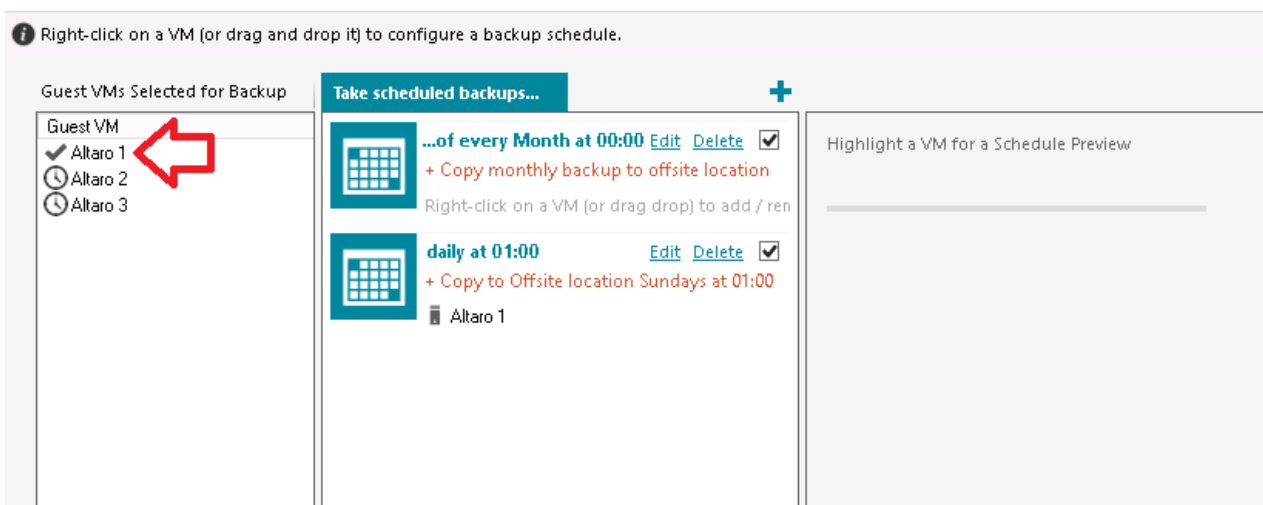**Default Backup Schedule Groups**

If you have not yet created any backup schedule groups then two default groups will be created for you. These default groups can be used as they are, edited or deleted. In any case when the default groups are created you will be notified by the following Dialog prompt.
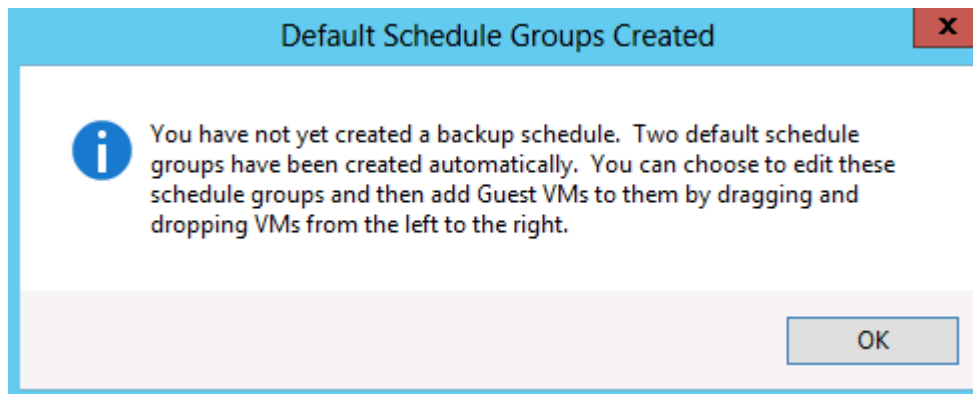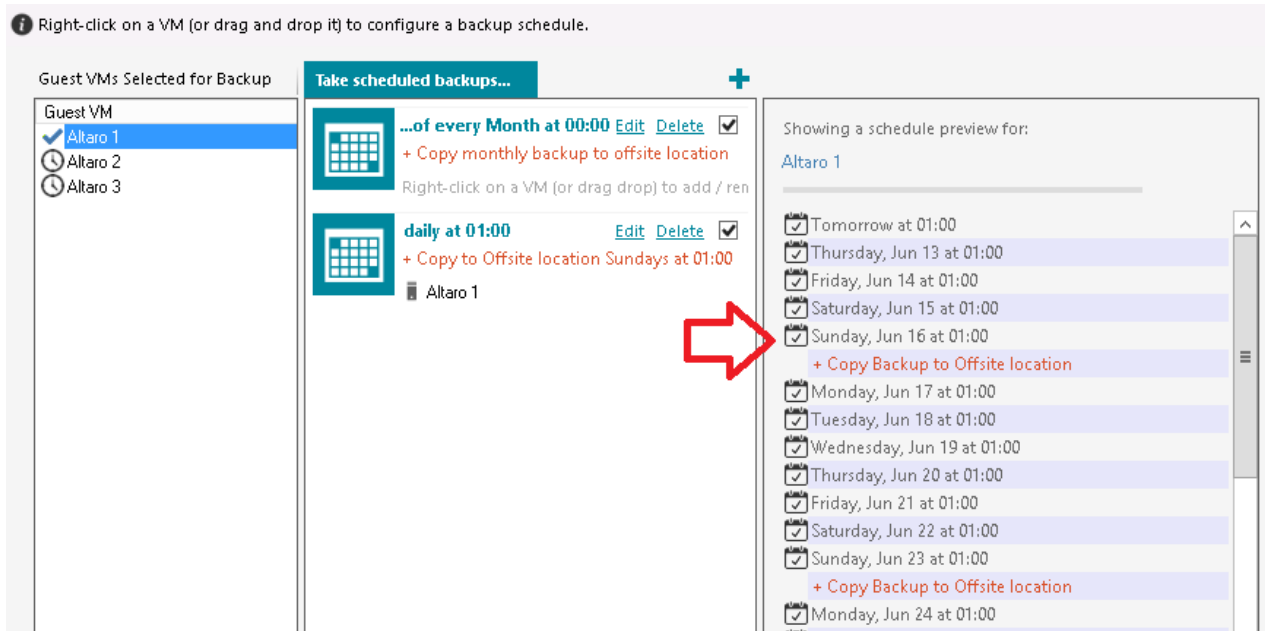

Adding a VM to a Schedule Group

Simply drag a VM (or multiple VMs) from the left hand side panel to the right hand side panel to add it to a Schedule Group.   Once the VM is added it will be listed within the Schedule Group panel to indicate that it has been added successfully.

A single VM can be added to multiple schedule groups and a single schedule group can contain multiple VMs.

Selecting a VM on the left hand side will display a Schedule Preview of the current settings for that VM, as shown in the example below:

You must press **Save Changes** at the bottom of the screen to commit changes.

**Removing a VM from a Schedule Group**

To remove a VM from a schedule group simply right-click on the VM in the group's VM list and choose "Remove VM from this Schedule Group".   The VM can be re-added at any time in the future.
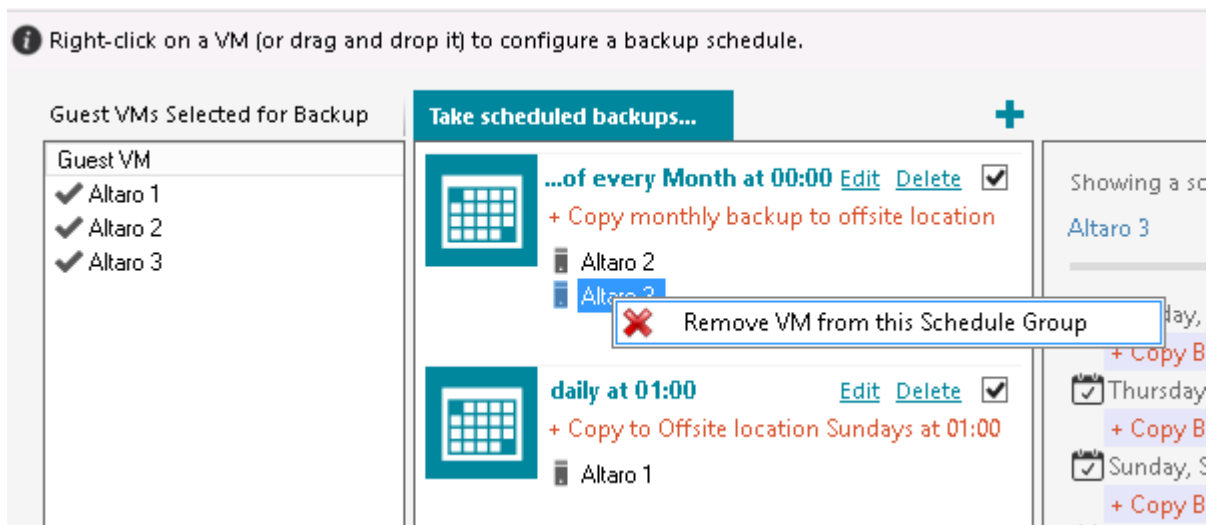
You must press **Save Changes** at the bottom of the screen to commit changes.

Editing / deleting / disabling Schedule Groups

At the top left of each schedule group are three buttons:
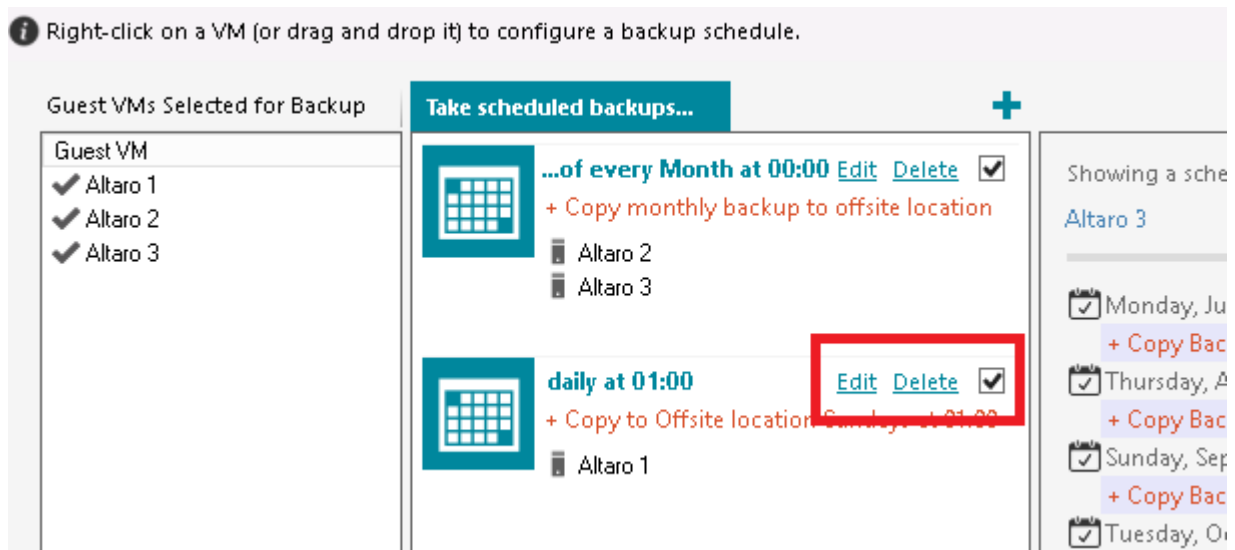

- Edit - change the schedule group backup schedule.
- Delete - discard the schedule group.   Any VMs belonging to it will be unassigned from it first.
- Enabled [y/n] - choose whether the group is active or has been disabled.   Backups will not take place for disabled schedule groups.

You must press **Save Changes** at the bottom of the screen to commit changes.

Create a Schedule Group

To create a new schedule group click on the "+" button.
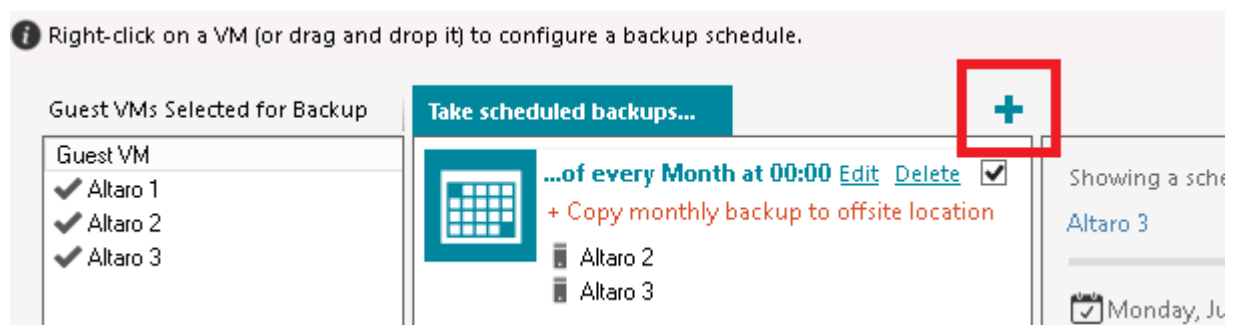
You will be presented by a Window which will prompt you for the schedule group settings.

Recurrence Pattern: whether you would like to configure a weekly or monthly recurrence.

Backup Times: settings to specify the backup times / days. This is split into two sections as shown below:

- o **Take a backup** - take a backup of the VMs in this schedule group to the predefined Backup location. To choose your backup location follow the instructions here.
- o **Follow up with an Offsite copy** - take a copy of the latest backups of the VMs in this schedule group to the predefined Offsite Copy location. To choose your Offsite Copy location follow the instructions here.
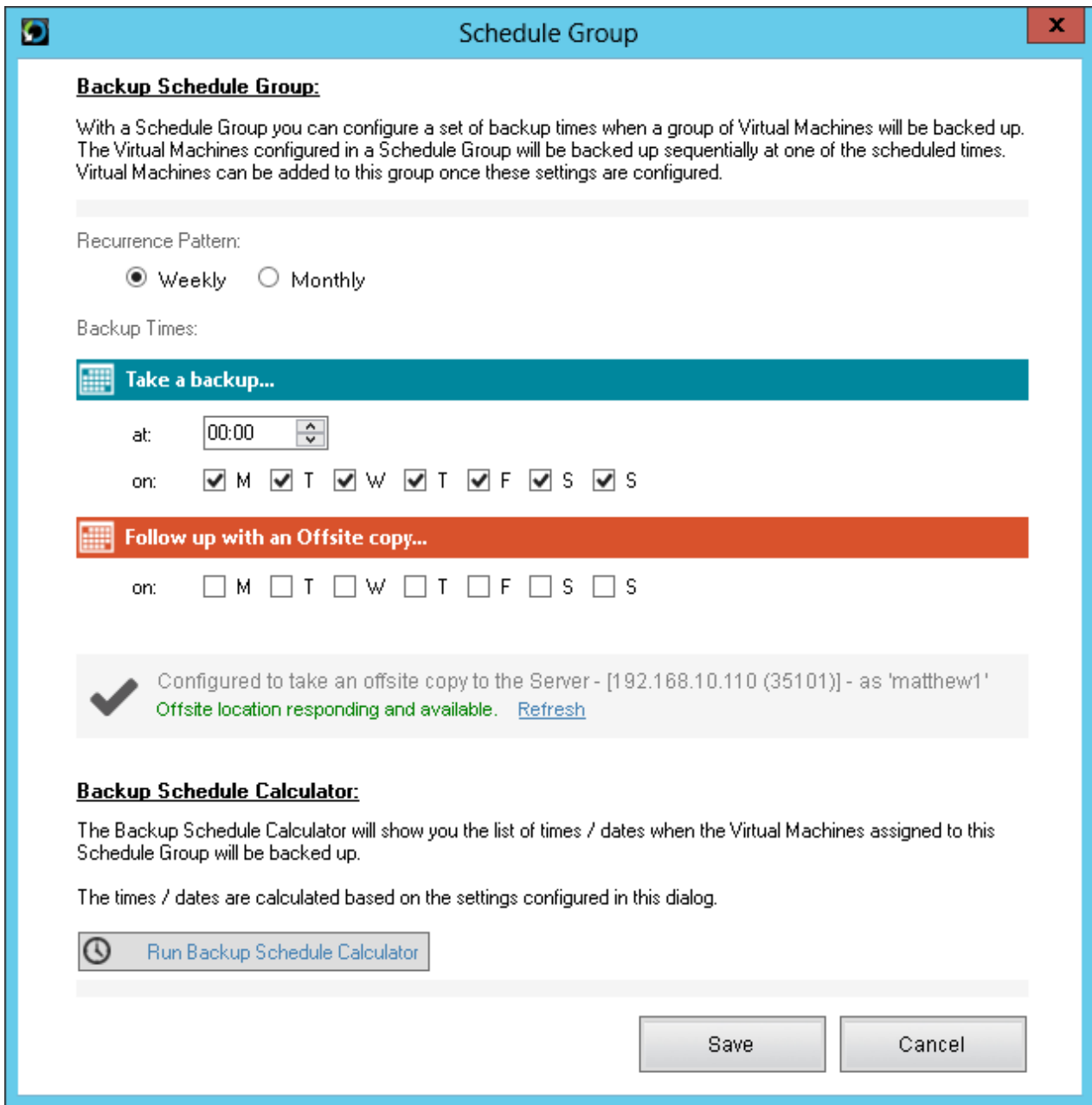
Weekly Recurrence

1. Select the weekly radio button.

2. Click "Add Backup Time" to add a new backup time entry to the list.

3. Configure multiple backup times.   eg.   10am on Mon, Tue and Friday.

4. These backup times will be repeated on a weekly basis.

Monthly Recurrence

1. Select the monthly radio button.

2. Choose whether you wish the backup to take place on the:

     - Xth day of every month.   eg: 10th day of every month.

- The Xth day of week of every month.   eg: 2nd Wed of every month.

**Run the Backup Schedule Calculator before saving changes**

You can verify the above settings by simulating the next 25 backup times.   To do this click on [Run Backup Schedule Calculator] and you will see a list of the next 25 backup times.
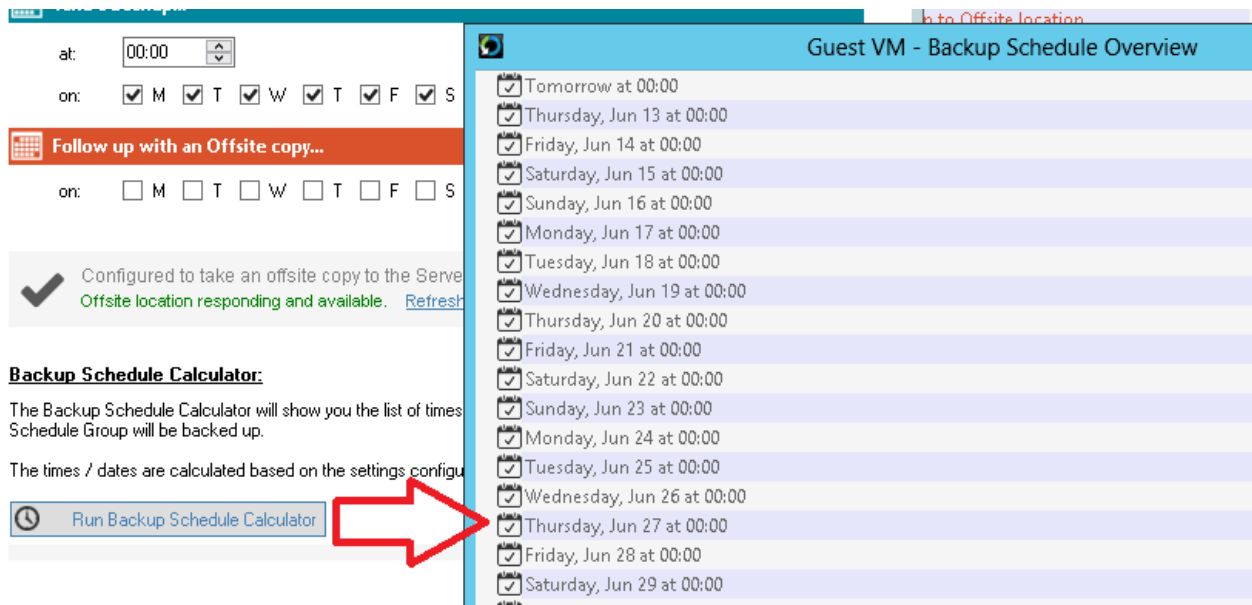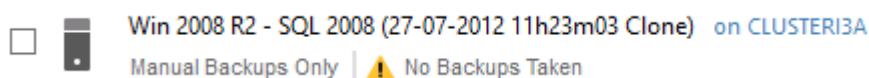

Conclusion

Once the Backup Schedule has been set you will notice that the schedule label in the **Backup / Restore** screen has changed.

In the case of a VM with no backup schedule set you will see:
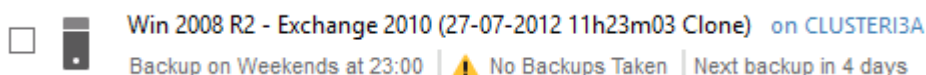
In the case of a VM where a backup schedule has been configured you will see:

# Configuring a Retention Policy

To manage the amount of disk space used uo on your backup drives and prevent it getting filled up it is important to configure a retention policy for each of your VMs backups.

To do this simply open the **Management Console** and select the option **Backup Retention Policy** from the left hand side main menu.

You will then be presented with a screen as follows:
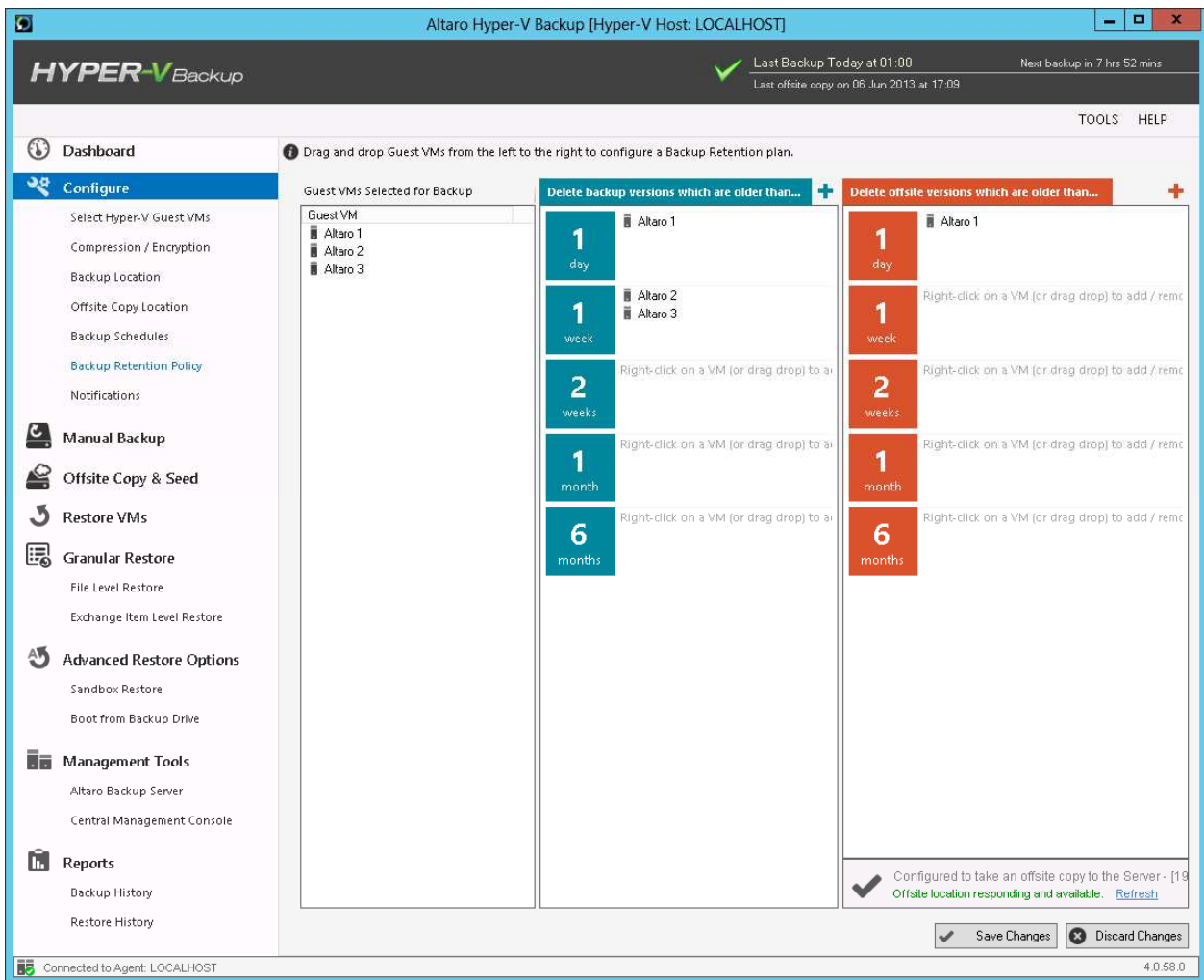
The retention policies for primary backups are shown in green, and those for your offsite copy are shown in orange.

To add a VM to a Retention Group simply drag and drop it from the left hand side into the desired group for both the primary and off-site retention groups.

If you would like to create a custom Retention Policy, you can do so by clicking the 'plus' (**+**) sign at the top of the appropriate section.

To remove a VM from a particular retention group, simply right-click the VM and choose **'Remove VM from this Retention Group'** as shown below:
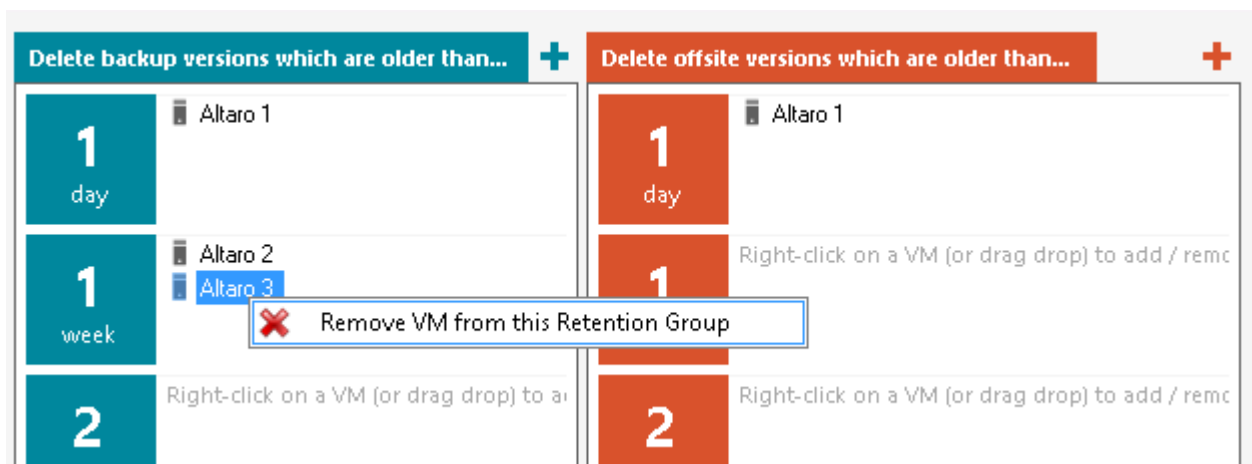
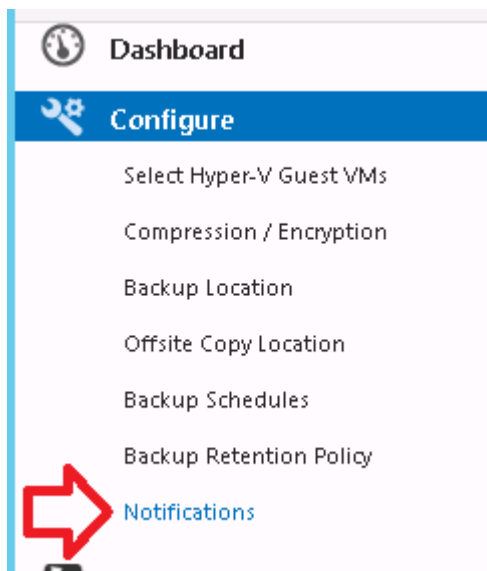Once you have configured a retention plan for all your VMs, click **Save Changes** to complete.
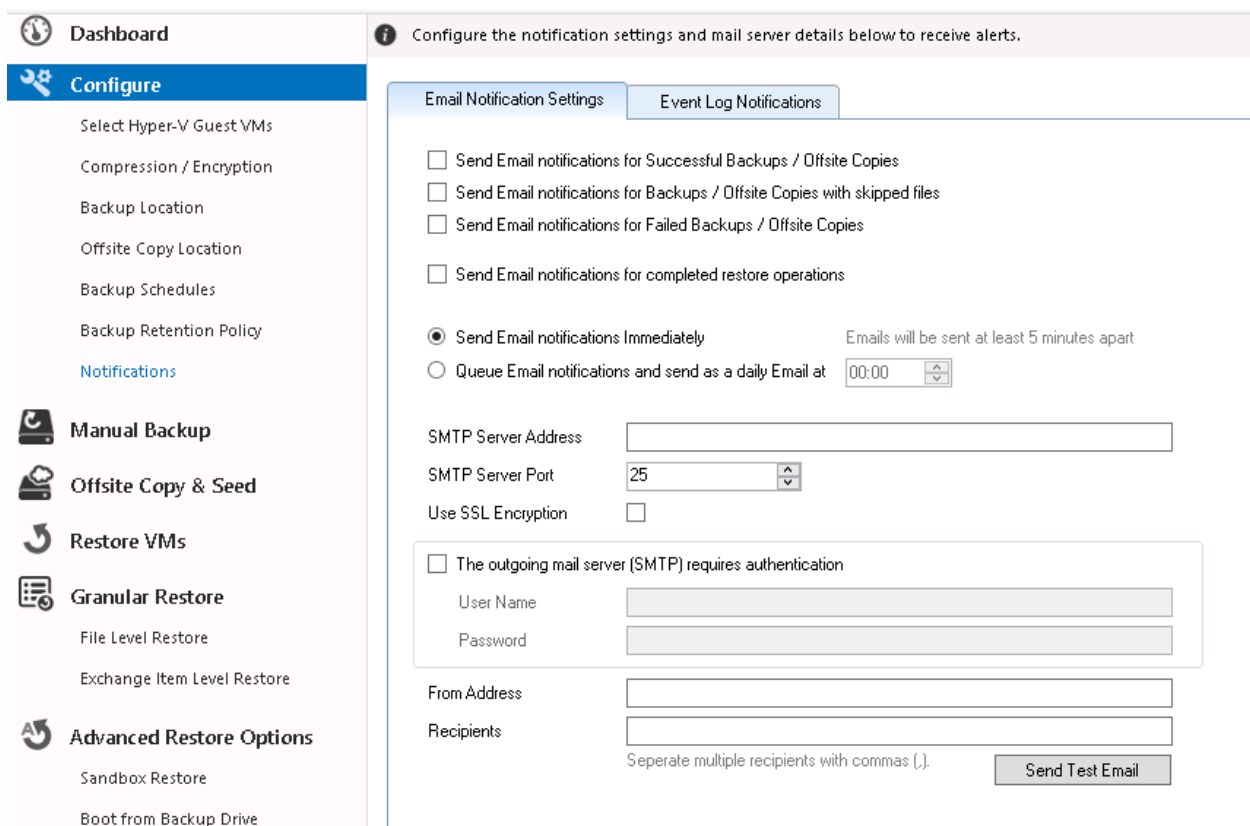
Enabling Notifications

To select which notifications to receive simply open the **Management Console** and select the option "**Notifications"** from the left hand side main menu.

Read instructions on how to open the Management Console here.

1.   Once you select "Notifications" you will be presented with the following panel:

2.   Simply use the checkboxes to select which notifications you would like to receive.

-           To learn how to configure Email notifications click here.
-           To learn how to configure Event Log notifications click here.

3.   Once the selections have been made simply click on '**Save Changes'** to update your backup plan.

Email Notifications

Email Notifications allow users to receive Backup / Restore Reports by email.   These reports indicate:

Backup Reports

- The status of each backup and the Hyper-V Guest VM that was backed up.

- The date and time of each backup.

- The amount of data backed up.

- The number of changed files.

- The number of skipped files.

- The duration of the backup.

Restore Reports

- The status of each restore operation and the Hyper-V Guest VM that was restored.

- The date and time of each restore operation.

- The duration of the restore operation.

Configuring Email Notifications in order to receive Backup Reports:

- Navigate to the **Setup Notifications** screen as shown here.

- Once within the **Setup Notifications** screen simply select the [Email Notification Settings] tab.

- Use the checkboxes to specify which notifications you would like to receive by email:

  - You can choose to receive notifications for: successful backups, backups in which one or more file was skipped, failed backups and completed restore operations.

  - If you choose to receive notifications for failed backups you will also be alerted when a backup is skipped because your backup drive is not connected.

- Next specify the frequency of your Email notifications. There are two options:

  - Immediately after the operation has completed. (Emails will be sent a minimum of 5 minutes apart and multiple notifications may be grouped into one email).

  - As a daily email digest at a specified time each day.

- Finally configure your SMTP mail server settings and the email recipients. The [Send Test Email] button can be used to test the SMTP settings.

- Once you've finished configuring the Email notifications click on the [Save Changes] button at the bottom of the screen.

Event Log Notifications

Event Log Notifications can be viewed within the Event Viewer console on Windows Server.   These are ideal for monitoring the backup and restore operations remotely from another server.

These log entries indicate the following information:

Backup Reports

- The status of each backup and the Hyper-V Guest VM that was backed up.

- The date and time of each backup.

- The amount of data backed up.

- The number of changed files.

- The number of skipped files.

- The duration of the backup.

Restore Reports

- The status of each restore operation and the Hyper-V Guest VM that was restored.

- The date and time of each restore operation.

- The duration of the restore operation.

Configuring Event Log Notifications in order to receive Backup Reports:

- Navigate to the **Setup Notifications** screen as shown here.

- Once within the **Setup Notifications** screen simply select the [Event Log Notifications] tab.

Configure the notification settings and mail server details below to receive alerts.

| Email Notification Settings | Event Log Notifications |

☑ Add an entry to the Event Log for Successful Backups / Offsite Copies
☑ Add an entry to the Event Log for Backups / Offsite Copies with skipped files
☑ Add an entry to the Event Log for Failed Backups / Offsite Copies

☑ Add an entry to the Event Log for completed restore operations

- Use the checkboxes to specify which notifications you would like to log:

  - You can choose to receive notifications for: successful backups, backups in which one or more file was skipped, failed backups and completed restore operations.

  - If you choose to receive notifications for failed backups you will also be alerted when a backup is skipped because your backup drive is not connected.

- Once you've finished configuring the Event Log notifications click on the [Save Changes] button at the bottom of the screen.

Contacting Technical Support

Online Support Center

Find resolutions for common problems, answers to frequently asked questions, product change logs and Live Chat support during office hours Monday to Friday.

Access the Online Support Center here: http://support.altaro.com

Email Support

Contact us via email - we will reply within 24 hours (business hours and weekdays)..

You can contact us via email on support@altaro.com.

Check our Online Community Forum

Find answers to most common questions, suggest new feature ideas and see how other users are making use of our software.

Access the Online Community Forum here: http://community.altaro.com