

---

## Hyper-V Standard and Rapid Recovery Considerations and Recommendations

<https://campus.barracuda.com/doc/73700775/>

### Applicable Products

---

These instructions apply to the following products:

- Barracuda Intronis Backup - MSP

### Overview

---

Barracuda Networks offers a native Hyper-V backup solution that allows you to protect virtual machines using the same web-based platform you use to back up the rest of your data.

### Rapid Recovery Backups

---

Rapid Recovery backups allow local backups of full VMs in a format that allows for fast RTO failover and object-level recovery.

Recover your VMs quickly (less than 15 minutes) and import the VMs into Hyper-V to run your recovered systems from the backup media. Use Rapid Recovery as a first-line-of-defense against local failover and recovery solution to protect against host or VM issues or when:

- Your RTO are minutes, not hours or days.
- Protecting against user error and recovering individual files.
- Compliance standards do not require full encryption of all local backup media.

### Standard Backups

---

Standard backups allow encrypted backups of full VMs to be stored in the Barracuda cloud or in a user's local storage.

You can restore VM VHD/VHDX files to a local or network location. Because this requires a copy operation, this restore has a longer RTO than Rapid Recovery. This restore can pull backup data from your local vault, or from the Barracuda cloud.

Use standard backups as a second-line-of-defense against full-site disasters or downtime or when:

- A local backup is not available.
- A compliance standard requires fully encrypted and/or offsite backup of critical business data.
- Your RTO requirements are not as strict as Rapid Recovery.

### **Object-level Recovery**

Object-level Recovery allows you to explore a VM backup from a point in time and restore individual files and folders.

### **Maximum Size VM that Can Be Backed Up**

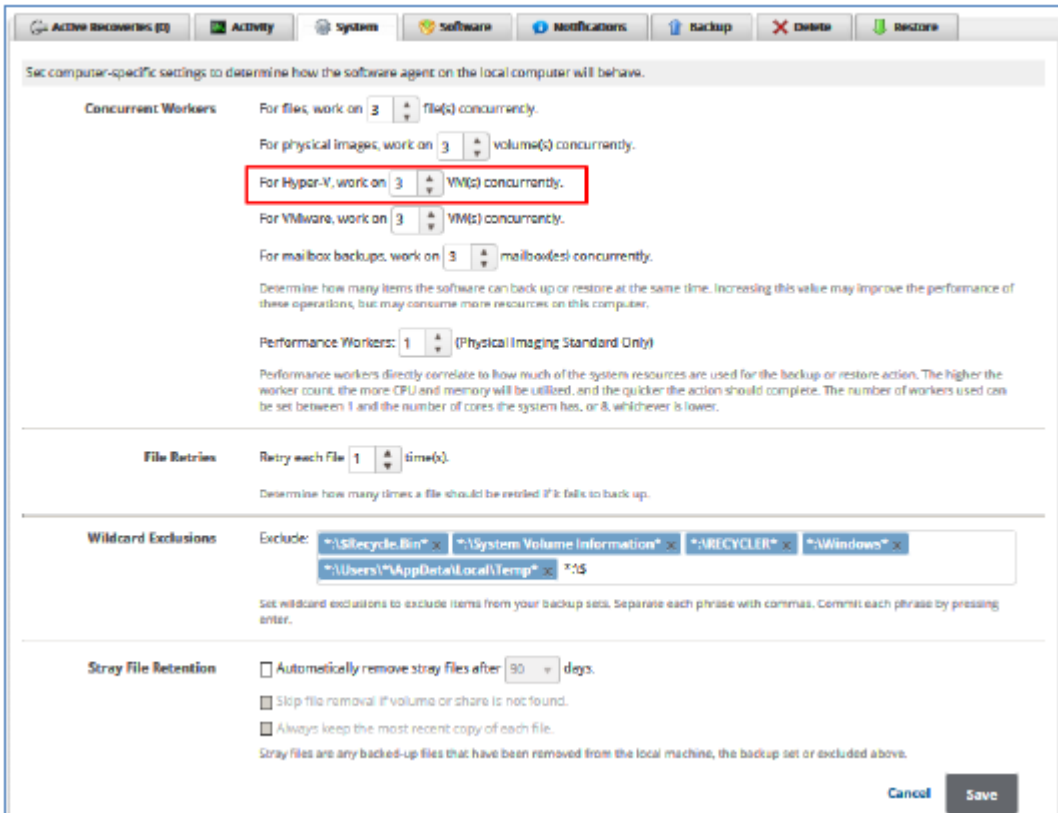
For Hyper-V or VMware Standard backups, there is no hard limit for backups. However, larger VMs may take longer to back up, especially if the VM contents change frequently.

### **Recommended Number of Hyper-V VMs to Back Up on a Single Host**

Although any number of VMs can be selected for back up on a single host, the system resources of the host and the total number of VMs should be taken into consideration when choosing backup worker settings and creating backup sets.

Backup sets with large number of VMs take longer to back up, especially if the VMs' data changes frequently. Schedule your backups accordingly.

You can choose how many VMs are backed up at the same time by modifying the Concurrent Workers setting on the System Settings page.



Set computer-specific settings to determine how the software agent on the local computer will behave.

**Concurrent Workers**

For files, work on  file(s) concurrently.

For physical images, work on  volume(s) concurrently.

For Hyper-V, work on  VM(s) concurrently.

For VMware, work on  VM(s) concurrently.

For mailbox backups, work on  mailbox(es) concurrently.

Determine how many items the software can back up or restore at the same time. Increasing this value may improve the performance of these operations, but may consume more resources on this computer.

Performance Workers:  (Physical Imaging Standard Only)

Performance workers directly correlate to how much of the system resources are used for the backup or restore action. The higher the worker count, the more CPU and memory will be utilized, and the quicker the action should complete. The number of workers used can be set between 1 and the number of cores the system has, or 8, whichever is lower.

**File Retries**

Retry each file  time(s).

Determine how many times a file should be retried if it fails to back up.

**Wildcard Exclusions**

Exclude:

Set wildcard exclusions to exclude items from your backup sets. Separate each phrase with commas. Commit each phrase by pressing enter.

**Stray File Retention**

☐ Automatically remove stray files after  days.

☐ Skip file removal if volume or share is not found.

☐ Always keep the most recent copy of each file.

Stray files are any backed-up files that have been removed from the local machine, the backup set or excluded above.

The default value for Hyper-V is three workers; which means three VMs are backed up at a time. If the Hyper-V host has adequate available resources (RAM and CPU), this value can be increased to back up to five VMs at the same time thereby improving backup speed.

Performance may degrade if backing up multiple VMs at once. Hosts with more robust specifications may be able to back up more VMs simultaneously.

## Specific Restrictions and Recommendations

This section includes the following:

- Linux Running on a Hyper-V Virtual Machine Data Retention Settings
- Hyper-V Is Not Cluster Aware
- Do Not Use Image Option to Back Up a Host that is Running a Number of Virtual Machines

### Linux Running on a Hyper-V Virtual Machine

In Hyper-V, Integration Services installed on the guest OS is required to back up Linux. Integration Linux distributions that support or come with bundled Integration Services can be displayed at the following link:

<https://technet.microsoft.com/en-us/library/Dn531030.aspx>

### **Data Retention Settings**

For maximum reliability and efficiency, the last 4 weeks' of revisions, and no fewer than four revisions, is the recommended data retention settings for backup sets using:

- Hyper-V Standard
- VMware Standard
- SQL
- Exchange

Hyper-V Rapid Recovery backups run more frequently and allow you to choose a specific number of revisions to keep. Choose a number of revisions that keeps data long enough to recognize any local failure (at least 24 hours, preferably a few days).

### **Hyper-V Is Not Cluster Aware**

Currently, the Hyper-V plug-in is not cluster aware.

Backing up Hyper-V VMs from a clustered environment is not supported. Any Hyper-V backup sets that are in a clustered configuration fail all backup attempts.

### **Do Not Use Image Option to Back up a Host that is running a Number of Virtual Machines**

For best recovery, use the Hyper-V backup set type to back up and restore individual VMs, and not the entire host.

## Figures

### 1. Recommend\_3.png

© Barracuda Networks Inc., 2024 The information contained within this document is confidential and proprietary to Barracuda Networks Inc. No portion of this document may be copied, distributed, publicized or used for other than internal documentary purposes without the written consent of an official representative of Barracuda Networks Inc. All specifications are subject to change without notice. Barracuda Networks Inc. assumes no responsibility for any inaccuracies in this document. Barracuda Networks Inc. reserves the right to change, modify, transfer, or otherwise revise this publication without notice.