

Axcient Virtual Manager Tech Overview

This document is a technical overview of the environmental and sizing considerations for the Axcient Virtual Manager (AVM). These considerations are based on the user's specific recovery point objective (RPO) and requirements.

An RPO refers to the maximum time a replication should take to complete successfully.

Requirements

The following port must be opened for the AVM to be able to replicate data to the Axcient cloud:

- Port 443

Disks must be attached in one of the following ways:

- Disk attached to a virtual machine via SCSI (in-guest iSCSI is not allowed).
- Disk attached to a virtual machine via SATA (for vCenter/ESXi version 6.0 and later).

VMware Compatibility

Refer to the Axcient Fusion Compatibility Matrix for details about current [VMware version support](#), including minimum versions and necessary configuration options.

AVM Sizing Considerations

The AVM sizing matrix is intended to help balance resource utilization on the ESXi host with the required RPO. These sizing considerations are for the AVM virtual machine that will replicate data from the protected ESXi host to the Axcient Cloud.

AVM sizing primarily consists of the following resources:

- CPU cores (or vCPU)
- Memory (RAM)

The matrix below offers best practice guidelines for how to allocate resources to the AVM virtual machine based on a number of guest VMs and the desired RPO. There may be other factors that affect RPO time, such as rate of data change, server size, network bandwidth, load on the ESXi host, and resources allocated to the AVM.

Number of Devices	1 Hour RPO	2 Hour RPO	4 Hour RPO
4 Guest VMs	4 vCPUs, 8GB RAM	4 vCPUs, 4GB RAM	4 vCPUs, 2GB RAM
5 Guest VMs	4 vCPUs, 8GB RAM	4 vCPUs, 5GB RAM	4 vCPUs, 3GB RAM
10 Guest VMs	4 vCPUs, 8GB RAM	4 vCPUs, 5GB RAM	4 vCPUs, 3GB RAM
15 Guest VMs	4 vCPUs, 10GB RAM	4 vCPUs, 5GB RAM	4 vCPUs, 3GB RAM

AVM Sizing Considerations

The datastore where the AVM is located should have 15-20% of free space at all times. This is needed by the AVM for removing snapshots and consolidating disks. If free space is not available, the AVM will be forced to perform full replications rather than incremental. This can result in longer replication times and possibly replication failure.

The AVM requires 50-80 GB of dedicated space for optimal operation. This space is used automatically when the AVM is deployed. If the AVM does not have the required space, replications may take longer or fail.

The AVM and the protected device must both be on a datastore with the same block size and VMFS version. Otherwise replications will fail.