

VMware: Getting Started with SoftNAS Cloud®

Overview

As a first-time user, the primary goals are simply to see the product in action, to determine its capabilities, and then to determine the requirements. This document will focus on providing you a functional pair of instances, both on VMware, sharing a CIFS volume, and configured for high availability. This basic setup will allow you to test the key features of SoftNAS, while providing a baseline for your production requirements.

Note: The guidance in the following document applies equally to all editions of SoftNAS Cloud® (Enterprise and Essentials), however, bear in mind the limitations of Essentials, notably that Essentials is object storage only, and currently does not provide high availability. However, the process of creating your instance, configuring disks, pools and volumes are the same.

Planning Your Instance

There are numerous considerations when creating any storage solution, and SoftNAS Cloud® is no exception. Dependent on the use case, the expected performance levels, the platform you select, and much more, one configuration of SoftNAS Cloud® will look much different from the rest. For the purposes of a basic proof of concept deployment (or POC), many of these elements might seem irrelevant, but they are not. For a POC to be of value, it must provide insight into not only the product but also what you intend to use it for. If your POC is not designed to provide you a baseline of the functionality you expect in a production environment, then it may be a wasted exercise.

To ensure your instance meets your needs, the following considerations are key:

- **Instance Size** – What performance characteristics do you require? A great deal of RAM to handle large-scale data storage? Processing power (vCPU) to handle encryption or compression?
- **Storage** – What performance characteristics do you require from your storage? Is it an infrequently accessed archive? Is it a database serving a demanding application?
- **Network/Throughput** – do you require a great deal of throughput? Does your use case require constant and immediate access to the data in question?
- **Security** – Should data be encrypted? Do you wish to restrict access to a specific IP or IP range? What traffic do you wish to allow?
- **High Availability** – Will you be leveraging SoftNAS' SNAP HA functionality, or will this be a stand-alone deployment? What are your HA requirements?

In order to assist you during the creation of the POC, we will be providing information on the key considerations listed above as they arise in the creation process.

VMware HA Considerations

As we are creating a highly available deployment on VMware, there are a few requirements specific to setting up high availability through SoftNAS. SnapReplicate™ can be performed as described in SnapReplicate™, and requires only two nodes.

Setting up SNAP HA™ in any VMWare virtualized environment requires the following:

- Two SoftNAS Cloud® controller nodes for replication and their corresponding IP addresses (DNS names) and networking credentials.
- A virtual IP within the storage VLAN subnet (see HA Design Principles for more information).
- An additional SoftNAS controller node is required, to act as an HA Controller. This SoftNAS SNAP HA™ Controller node is necessary, as it acts as a 3rd party witness and controller to all SNAP HA™ failover and takeover operations.
- Replication must be set up between the two SoftNAS Cloud® controller nodes.

Of the above considerations, the primary difference between VMware instances and Cloud based instances is the requirement of a third SoftNAS VM as HA controller.

- [VMware Getting Started - Deploying SoftNAS Cloud Virtual Machines](#)
- [VMware Getting Started - Adding Storage](#)
- [VMware Getting Started - Configuring High Availability](#)
- [VMware Getting Started - Project Planning](#)