

# Suggested Specifications for OnApp

There are many factors that determine how many virtual servers you can run. Below you can find specifications for a small starter cloud and a more advanced cloud for three different deployment scenarios - using a centralized SAN, using OnApp's integrated SAN, and using simple local storage in compute resources.

## On this page:

- [Centralized SAN](#)
- [Integrated SAN \(OnApp Storage\)](#)
- [Local storage](#)

## See also:

[Server Config Reminder](#) - supported versions of the servers

[Hardware Requirements](#)

[Software Requirements](#)

[Recommended Network Configurations](#)

[Types of Cloud Service with OnApp](#)

## Need more help?

With the full version of OnApp Cloud you get free support from our integrations team to spec the exact hardware you'll need for your cloud deployment.

## Centralized SAN

	'Starter' cloud	'Advanced' cloud
<b>Main Control Panel</b>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 8GB DDR3 1333/1066/800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• 6Gbps hardware SAS Controller</li> <li>• 4 x 80GB SAS (RAID10)</li> </ul>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 24GB DDR3 1333/1066/800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• 6Gbps hardware SAS Controller</li> <li>• 4 x 80GB SAS (RAID10)</li> </ul>
<b>Compute resources</b>	<p>Minimum of 3, plus 1 spare for failover:</p> <ul style="list-style-type: none"> <li>• 2 x Intel Xeon Quad Core E5620 CPUs</li> <li>• 64GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controller</li> <li>• 2 x 60GB SATA RAID1</li> </ul>	<p>Minimum of 5, plus 1 spare for failover:</p> <ul style="list-style-type: none"> <li>• 2 x Intel Xeon Quad Core E5620 CPUs</li> <li>• 64GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• or 1 x Intel Dual-Port 10 Gigabit Ethernet Controller</li> <li>• 2 x 60GB SATA RAID1</li> </ul>
<b>Backup server 1</b>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 12GB DDR3 1333/1066/800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• 6Gb hardware SAS Controller</li> <li>• 12 x 2TB SAS RAID5</li> </ul>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 12GB DDR3 1333/1066/800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• or 1 x Intel Dual-Port 10 Gigabit Ethernet Controller</li> <li>• 6Gb Hardware SAS Controller</li> <li>• 12 x 2TB SAS RAID5</li> </ul>
<b>Backup server 2</b>		<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 12GB DDR3 1333/1066/800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• or 1 x Intel Dual-Port 10 Gigabit Ethernet Controller</li> <li>• 6Gb Hardware SAS Controller</li> <li>• 12 x 2TB SAS RAID5</li> </ul>
<b>Primary storage array</b>	<ul style="list-style-type: none"> <li>• iSCSI hardware storage array</li> <li>• 12 x 500GB SAS RAID10</li> </ul>	<ul style="list-style-type: none"> <li>• iSCSI hardware storage array</li> <li>• 24 x 500GB SAS RAID10</li> </ul>
<b>VS rating</b>	<b>192</b>	<b>320</b>

## Integrated SAN (OnApp Storage)

	'Starter' cloud	'Advanced' cloud
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<b>Control Panel</b>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon Processor</li> <li>• 8GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• 6Gbps hardware SAS Controller</li> <li>• 4 x 80GB SAS (RAID10)</li> </ul>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon Processor</li> <li>• 24GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• 6Gbps hardware SAS Controller</li> <li>• 4 x 80GB SAS (RAID10)</li> </ul>
<b>Compute resources</b>	<p>Minimum of 3, plus 1 spare for failover:</p> <ul style="list-style-type: none"> <li>• 2 x Intel Xeon Quad Core E5620</li> <li>• 64GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controller</li> <li>• 2 x 60GB SATA RAID1 (OnApp installation)</li> <li>• 8 x 250GB SAS RAID10 (local primary storage)</li> </ul>	<p>Minimum of 5, plus 1 spare for failover:</p> <ul style="list-style-type: none"> <li>• 2 x Intel Xeon Quad Core E5620</li> <li>• 64GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• or 1 x Intel Dual-Port 10 Gigabit Ethernet Controller</li> <li>• 2 x 60GB SATA RAID1 (OnApp installation)</li> <li>• 8 x 250GB SAS RAID10 (local primary storage volume)</li> </ul>
<b>Backup server 1</b>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 12GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• Hardware 6Gb SAS Controller</li> <li>• 12 x 2TB SAS RAID5</li> </ul>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 12GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• or 1 x Intel Dual-Port 10 Gigabit Ethernet Controller</li> <li>• 6Gb hardware SAS Controller</li> <li>• 12 x 2TB SAS RAID5</li> </ul>
<b>Backup server 2</b>		<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 12GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• or 1 x Intel Dual-Port 10 Gigabit Ethernet Controller</li> <li>• 6Gb hardware SAS Controller</li> <li>• 12 x 2TB SAS RAID5</li> </ul>
<b>VS rating</b>	<b>192</b>	<b>320</b>

## Local storage

	'Starter' cloud	'Advanced' cloud
<b>Control Panel</b>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon Processor</li> <li>• 8GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• 6Gbps hardware SAS Controller</li> <li>• 4 x 80GB SAS (RAID10)</li> </ul>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon Processor</li> <li>• 24GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• 6Gbps hardware SAS Controller</li> <li>• 4 x 80GB SAS (RAID10)</li> </ul>
<b>Compute resources</b>	<p>Minimum of 3, plus 1 spare for failover:</p> <ul style="list-style-type: none"> <li>• 2 x Intel Xeon Quad Core E5620</li> <li>• 64GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controller</li> <li>• 2 x 60GB SATA RAID1 (OnApp installation)</li> <li>• 8 x 250GB SAS RAID10 (local primary storage)</li> </ul>	<p>Minimum of 5, plus 1 spare for failover:</p> <ul style="list-style-type: none"> <li>• 2 x Intel Xeon Quad Core E5620</li> <li>• 64GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• or 1 x Intel Dual-Port 10 Gigabit Ethernet Controller</li> <li>• 2 x 60GB SATA RAID1 (OnApp installation)</li> <li>• 8 x 250GB SAS RAID10 (local primary storage volume)</li> </ul>
<b>Backup server 1</b>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 12GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• Hardware 6Gb SAS Controller</li> <li>• 12 x 2TB SAS RAID5</li> </ul>	<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 12GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• or 1 x Intel Dual-Port 10 Gigabit Ethernet Controller</li> <li>• 6Gb hardware SAS Controller</li> <li>• 12 x 2TB SAS RAID5</li> </ul>

<b>Backup server 2</b>		<ul style="list-style-type: none"> <li>• 2 x Intel Xeon CPUs</li> <li>• 12GB DDR3 1333/ 1066/ 800MHz ECC Registered DIMM</li> <li>• 2 x Intel Dual-Port Gigabit Ethernet Controllers</li> <li>• or 1 x Intel Dual-Port 10 Gigabit Ethernet Controller</li> <li>• 6Gb hardware SAS Controller</li> <li>• 12 x 2TB SAS RAID5</li> </ul>
<b>VS rating</b>	<b>192</b>	<b>320</b>

- **NICs:** the starter specification assumes 1Gbit connectivity for storage/provisioning data. The advanced spec assumes 10Gbit. Infiniband and FiberChannel are suitable alternatives for 10Gbit, too, though connectivity on servers with access to the storage network would need to be amended with hardware HBAs.
- **Compute resources:** recommended minimum redundancy is 1 spare compute resource per 3-5 primary compute resources. N+1 redundancy would require 1 redundant compute resource server for each primary compute resource server.
- **VS rating:** estimated VS capacity is a guideline only, since VS load and requirements will vary enormously. We've assumed an average VS requirement of 1GB RAM, 10GB disk and 1/8 contention on the CPU cores.