

Foundation Cloud Build Hardware Requirements



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Foundation Cloud Build can be delivered in two distinct architectures: Converged and Classic. Each has differing hardware requirements.

Converged

In Foundation Cloud Converged, OpenStack services are isolated in containers and spread across physical servers such that compute services can reside on a server alongside storage and control plane services such as API servers or components such as MySQL. Infrastructure servers are required to run Canonical's automated tooling that manages the operations of the cloud.

The advantages to using a converged architecture is that higher levels of redundancy and availability can be achieved in a cloud with fewer servers making it more efficient from a cost/performance perspective.

The requirements for a Converged Cloud Build are:

	Infrastructure		Cloud	
	Recommended	Minimum	Recommended	Minimum
# Servers	3	3	9	9
CPUs (per server)	2x Intel Xeon E5-2680E5-2690 v4 (2.6GHz, 14-Core) or greater	12 cores	2x Intel Xeon E5-2680E5-2690 v4 (2.6GHz, 14-Core) or greater	12 cores
Memory	256Gb	128Gb	512Gb	256Gb
Spinning Disks	2x 4TB LFF 7.2K 6G SATA	2x 2TB LFF 7.2K 6G SATA	6x 4TB LFF 7.2K 6G SATA	4x 2TB LFF 7.2K 6G SATA
SSD	1x 1.2TB 800GB Intel SSD DC P3600+ Series	1x 400GB PCIe SSD	1x 1.2TB 800GB Intel SSD DC P3600+ Series	1x 400GB PCIe SSD
Networking	2x 10GB 1 x BMC	2x 10GB 1 x BMC	4x 10G 1x BMC	4x 10G 1x BMC

Classic

In a Classic architecture the groups of services are run on separate servers so that control plane services are not mixed with cloud services or infrastructure. The advantage to this approach is that organisations who divide operations based on service type are more easily able to divide clear responsibility for service functions.

Classic architecture also allows storage and compute services to be scaled independently although the trade off is that more hardware is required to provide the same levels of availability versus a converged architecture.

The requirements for a Classic Cloud Build are:

	Infrastructure		Control		Compute	
	Recommended	Minimum	Recommended	Minimum	Recommended	Minimum
# Servers	3	3	6	6	6	6
CPUs (per server)	2x Intel Xeon E5-2680E5-2690 v4 (2.6GHz, 14-Core) or greater	12 cores	2x Intel Xeon E5-2680E5-2690 v4 (2.6GHz, 14-Core) or greater	12 cores	2x Intel Xeon E5-2680E5-2690 v4 (2.6GHz, 14-Core) or greater	12 cores
Memory	256Gb	128Gb	256Gb	128Gb	256Gb	128Gb
Spinning Disks	2x 4TB LFF 7.2K 6G SATA	2x 2TB LFF 7.2K 6G SATA	2x 4TB LFF 7.2K 6G SATA	2x 2TB LFF 7.2K 6G SATA	6x 4TB LFF 7.2K 6G SATA	4x 2TB LFF 7.2K 6G SATA
SSD	1x 1.2TB 800GB Intel SSD DC P3600+ Series	1x 400GB PCIe SSD	1x 1.2TB 800GB Intel SSD DC P3600+ Series	1x 400GB PCIe SSD	1x 1.2TB 800GB Intel SSD DC P3600+ Series	1x 400GB PCIe SSD
Networking	2x 10GB 1 x BMC	2x 10GB 1 x BMC	4x 10GB 1 x BMC	4x 10GB 1 x BMC	4x 10GB 1 x BMC	4x 10GB 1 x BMC