Feature Brief: SDDC Host Types

VMware General

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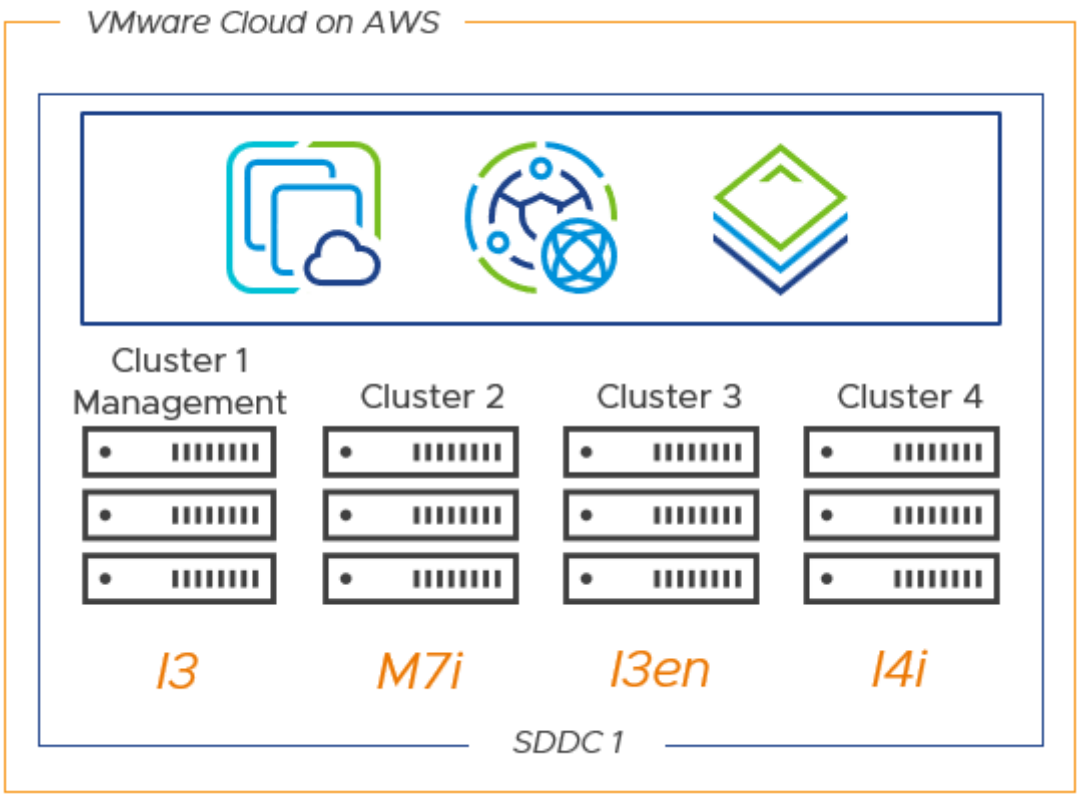
Introduction

VMware Cloud on AWS delivers consistent vSphere-based infrastructure that runs on Amazon EC2 elastic, bare-metal instances dedicated to each customer. We do this globally across AWS Regions. The underlying instances provide the compute, storage, and networking infrastructure for your software-defined data center. There are multiple host types available to optimize for particular use cases that may have different performance or data storage requirements. All hosts in a cluster must be identical, but you can deploy more than one cluster in an SDDC if another type of host is needed. Customers may be able to get better economics and performance by creating multiple clusters with different instance types based on their workload and environment needs.



Note that some host types may not be available within a particular region or availability zone. Depending on the host type, cluster sizes of 1-16 nodes are supported. Our feature brief on SDDC Clusters will provide you with more cluster details, and our configuration maximum guide will provide you with soft/hard limits and other configuration information.

I3

The i3 host type was our initial host offering and the default option for VMware Cloud on AWS cluster deployments. These hosts are suitable for most workloads including general computing, databases, and virtual desktop deployments.

Note: Announcement of the end of sale, end of support and end of life timeline of the i3 instance type

I3	

**actual numbers can be slightly different depending on used storage policies*

This host type is available for use in all cluster types including single-node, two-node, 3+ node, and stretched cluster deployments.

An I3 host type can provide you with a maximum cluster size of 16 hosts containing 576 cores, almost 9 TB of RAM, and 160 TiB of raw storage capacity.

M7i

The M7i host type is the latest addition to the list of instance/host types. It is a perfect fit for entry-level SDDCs (2-4 hosts). We see a lot of use cases that make sense for this new option, including your typical general-purpose workloads, but also database backends and AI/ML applications because of the embedded accelerators as part of the 4th generation Intel Xeon CPU. It has no local NVMe SSD devices, so external NFS datastore options must be used.

M7i (Link to FAQ)	

**Not applicable as M7i is a disaggregated instance type using external NFS datastores*

Single host M7i deployments are not available. An M7i host type can provide a maximum cluster size of 16 (soft-limit) hosts.

I3en

The i3en host type is optimized for data-intensive workloads both for storage-bound or general-purpose clusters. These hosts are suitable for workloads that have high capacity storage needs and have high transaction rates such as NoSQL databases, distributed file systems, and data warehouses.

I3en	

**actual numbers can be slightly different depending on used storage policies*

This host type is available for use in 2+ node and stretched cluster deployments but not available for single-node deployments.

An I3en host type can provide you with a maximum cluster size of 16 hosts containing 768 cores, 13 TB of RAM, and roughly 768 TiB of raw storage capacity.

I4i

The I4i host type is a recent addition to the list of supported instance/host types. It is resource-optimized to support all workloads. The i4i bare-metal EC2 instance type uses the 3rd Intel Xeon generation.

I4i	

**Applicable for vSAN Original Storage Architecture (OSA) only. vSAN ESA doesn't use the disk groups concept*
***Actual numbers can be slightly different depending on used storage policies*

The instance has 30TB of NVMe capacity, and 7.5TB is used for caching. Single host i4i deployments are available for a 60-day trial without a Service Level objective (SLO). An I4i host type can provide you with a maximum cluster size of 16 (soft-limit) hosts containing 1024 cores, more than 16TB of RAM, and roughly 480TB of raw storage capacity.

Summary

With multiple host types available, you can choose the host that best fits your compute, storage, and use-case requirements with the added flexibility to shrink and grow your clusters on demand. To help you determine the appropriate SDDC and cluster sizes, including host types, be sure to check out the VMware Cloud Sizer. This online tool provides insights on how to size VMware Cloud on AWS to your requirements.