Hammerspace Software on Supermicro Servers

Hammerspace Data Platform software
on certified Supermicro server hardware

DATASHEET

Introduction

Hammerspace Data Platform software unifies unstructured data across sites, clouds, and any storage, provides extreme parallel performance for AI, GPUs, and high speed data analytics, and automates data placement non-disruptively with data orchestration.

Hammerspace has partnered with Supermicro to deliver Hammerspace Data Platform software as a series of appliances based on Supermicro server hardware. These appliances deliver the power of Hammerspace on pre-certified hardware that is optimized for price-performance, with the convenience and simplicity of an appliance purchasing model.

Appliance Types and Options

Hammerspace can be configured to address a broad range of performance and capacity needs, including the extreme levels of performance required in AI and HPC workloads. Metadata and data servers are scaled independently using the server types shown below.

In addition to commodity servers, Hammerspace can also run on any of the leading NAS, Block, Object, and Cloud storage platforms.

Server Types	Metadata Servers	Data Servers	
Description	Anvil Metadata Servers	Data Services (DSX) Nodes	Linux Storage Servers
Function	Runs Hammerspace Anvil metadata services	Used to scale out client access, scale performance, provide cross-platform data services, and provide multi-protocol access via NFSv3, SMB, and S3 protocols	Used to scale performance and capacity when clients access storage directly using the Parallel NFSv4.2 protocol, or scale capacity when building storage clusters based on commodity servers
Form Factor	1U 10-Drive	1U 10-Drive 2U 24-Drive	1U 10-Drive 2U 24-Drive
Processor Options	Intel or AMD		

Supermicro Metadata Server Specifications

Hammerspace Anvil metadata servers can be deployed as software, as VMs, on the cloud, or on these pre-certified server models.

Intel CPU Server Models

Size	Small	Medium	Large	X-Large
Server Model	SYS-121C-TN2R	SYS-121C-TN2R	SYS-121C-TN2R	SYS-121C-TN2R
Form Factor	1U	1U	1U	1U
Metadata Capacity (Raw)*	1.6 TB 3.2 TB	3.2TB 6.4TB	6.4TB 12.8TB 25.6TB	12.8TB 25.6TB 51.2TB
CPU	1x 6526Y 16 Cores 2.8GHz	2x 6526Y 16 Cores 2.8GHz	2x 6542Y 24 Cores 2.9GHz	2x 6548N 32 Cores 2.8GHz
Memory	8x 16GB DDR5-5600	16x 16GB DDR5-5600	16x 32GB DDR5-5600	16x 32GB DDR5-5600 16x 64GB DDR5-5600
System Drive	Embedded Dual M.2 RAID1 (480GB minimum)		Embedded Dual M.2 RAID1 (960GB minimum)	
RAID Controller	NONE: Direct NVMe			
Networking**	1x Dual Port 100GbE			
LOM	1GigE Based LOM			
PCIE	Maximum Gen5 x16 Slots			

AMD Server Models

Size	Small	Medium	Large	X-Large
Server Model	AS-1115CS-TNR	AS-1115CS-TNR	AS-1115CS-TNR	AS-1115CS-TNR
Form Factor	1U	1U	1U	1U
Metadata Capacity (Raw)*	1.6 TB 3.2 TB	3.2TB 6.4TB	6.4TB 12.8TB 25.6TB	12.8TB 25.6TB 51.2TB
CPU	1x 9254 24 Cores 2.9GHz	1x 9354P 32 Cores 3.25GHz	1x 9454P 48 Cores 2.75GHz	1x 9534 64 Cores 2.4GHz
Memory	12x 16GB DDR5	12x 16GB DDR5	12x 32GB DDR5	12x 32GB DDR5 x 64GB DDR5
System Drive	Embedded Dual M.2 RAID1 (480GB minimum)		Embedded Dual M.2 RAID1 (960GB minimum)	
RAID Controller	NONE: Direct NVMe			
Networking**	1x Dual Port 100GbE			
LOM	1GigE Based LOM			
PCIE	Maximum Gen5 x16 Slots			

**Lowest capacity does not allow for storage resilience, whereas other capacity points can be configured / mirrored for resilience.*

***Default option shown. Each can be configured with 25GbE, 100GbE, 200GbE, 400GbE. Mellanox preferred, CX6 or above.*

DSX Server and Linux Storage Server Specifications

Hammerspace DSX nodes can be deployed as software, as VMs, on the cloud, or on these pre-certified Supermicro servers.

These same server models can be deployed as Linux Storage Servers as part of a Hammerspace Hyperscale NAS storage cluster.

Intel CPU Server Models

Form Factor	1U, 10-Drive			2U, 24-Drive		
Size Options	Small	Medium	Large	Small	Medium	Large
Server Model	SYS-121C-TN10R	SYS-121C-TN10R	SYS-121C-TN10R	SYS-221H-TN24R	R760	R760
Raw Capacity Options*	Mixed Use SSDs: 16 to 64 TB Read Intensive SSDs: 19.2 to 153.6 TB			Mixed Use SSDs: 38.4 to 153.6 TB Read Intensive SSDs: 46.08 to 368.64 TB		
CPU	2x 5515+ 8 Cores 3.2GHz	2x 6526Y 16 Cores 2.8GHz	2x 6542Y 24 Cores 2.9GHz	2x 5515+ 8 Cores 3.2GHz	2x 6526Y 16 Cores 2.8GHz	2x 6542Y 24 Cores 2.9GHz
Memory	16x 16GB DDR5-5600	16x 32GB DDR5-5600	16x 64GB DDR5-5600	16x 16GB DDR5-5600	16x 32GB DDR5-5600	16x 64GB DDR5-5600
System Drive	Embedded Dual M.2 RAID1 (480GB minimum)			Embedded Dual M.2 RAID1 (480GB minimum)		
RAID Controller	NONE: Direct NVMe			NONE: Direct NVMe		
	1x Dual Port 100GbE			1x Dual Port 100GbE		
LOM	1GigE Based LOM			1GigE Based LOM		
PCIE	Maximum [Gen5] x16 Slots			Maximum Gen5 x16 Slots		

AMD Server Models

Form Factor	1U, 10-Drive			2U, 24-Drive		
Size Options	Small	Medium	Large	Small	Medium	Large
Server Model	AS-1115CS-TNR	AS-1115CS-TNR	AS-1115CS-TNR	AS-2115HS-TNR	AS-2115HS-TNR	AS-2115HS-TNR
Raw Capacity Options*	Mixed Use SSDs: 16 to 64 TB Read Intensive SSDs: 19.2 to 153.6 TB			Mixed Use SSDs: 38.4 to 153.6 TB Read Intensive SSDs: 46.08 to 368.64 TB		
CPU	1x 9254 24 Cores 2.9GHz	1x 9354P 32 Cores 3.25GHz	1x 9454P 48 Cores 2.75GHz	1x 9254 24 Cores 2.9GHz	1x 9354P 32 Cores 3.25GHz	1x 9454P 48 Cores 2.75GHz
Memory	12x 16GB DDR5 4800MT/s	12x 32GB DDR5 4800MT/s	12x 64GB DDR5 4800MT/s	12x 16GB DDR5 4800MT/s	12x 32GB DDR5 4800MT/s	12x 64GB DDR5 4800MT/s
System Drive	Embedded Dual M.2 RAID1 (480GB minimum)			Embedded Dual M.2 RAID1 (480GB minimum)		
RAID Controller	NONE: Direct NVMe			NONE: Direct NVMe		