

IBM FlashSystem V9000

IBM FlashSystem V9000 at a glance		
Models	9846/9848 AC3 controllers 9846/9848 AE3 flash enclosure drawers	
System size	Minimum (1 x AE3 and 2 x AC3)	Maximum scaled-out system (8 x AE3 and 8 x AC3)
Flash type	IBM-enhanced 3D TLC	
Flash module configuration	For each AE3: 6, 8, 10 or 12 3.6 TB modules; or 8, 10 or 12 8.5 TB modules; or 8, 10 or 12 18 TB modules	Up to 8 AE3 expansions; up to 4 AC3 pairs
Maximum internal flash capacity	<ul style="list-style-type: none"> • 43 TB to 219 TB (effective, assuming 2.5:1 or better hardware compression) • 900 TB (effective, assuming 5:1 data reduction) 	<ul style="list-style-type: none"> • Up to 1.7 PB (effective, assuming 2.5:1 or better hardware compression) • 6.7 PB (effective, assuming 5:1 data reduction)
Maximum external storage capacity	External virtualization: Up to 32 PB usable capacity	
Maximum performance (100% read, cache miss)		
Minimum latency (4K)	180 µs	180 µs
IOPS (4K) with h/w compression	1,300,000	5,200,000
Bandwidth (256K)	10 GB/s	80 GB/s
RAS features	Two-dimensional flash RAID <ul style="list-style-type: none"> • Module-level Variable Stripe RAID • System-level RAID 5 across modules Hot-swappable flash modules Tool-less module installation/replacement Concurrent code load Redundant and hot-swappable components	
Encryption	Data-at-rest AES-XTS 256	
Host connectivity options per building block	16 x 16/8/4 Gb Fibre Channel with NVMe-oF support 8 x 10 Gb Fibre Channel over Ethernet (FCoE) 8 x 10 Gb iSCSI	64 x 16/8/4 Gb Fibre Channel with NVMe-oF support 32 x 10 Gb Fibre Channel over Ethernet (FCoE) 32 x 10 Gb iSCSI
Virtualization software model	5639-RB8	
Tiered solution models	9846/9848 12F, 24F and 92F SAS expansion drawers, with each drawer adding up to a further 1.3 PB of storage	
Controller CPU	Four Intel Xeon E5 v4 Series 8-core 3.2 GHz processors	16 Intel Xeon E5 v4 Series 8-core 3.2 GHz processors
Controller memory	128 GB standard, up to 512 GB	512 GB standard, up to 2,048 GB

Dimensions (height x width x depth)	6U in a standard 19 in. rack 288 mm x 445 mm x 801 mm	4 x 6U blocks in a standard 19 in. rack 1,066 mm x 445 mm x 801 mm Additional AE2 units add 2U or 44.5 mm in height
Weight	82 kg (181 lb) fully loaded	Up to 736 kg (1623 lb) fully loaded

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