

EMC Avamar Data Store



EMC Avamar Data Store is available in convenient build-to-order and pre-racked configurations for simplified deployment. This turnkey solution significantly reduces on-site prep, test, and setup time, while providing streamlined, single-vendor purchasing, deployment, and service.

EMC[®] Avamar[®] Data Store is a fully integrated, pre-packaged hardware and software solution that combines EMC Avamar backup and recovery software with global source deduplication and EMC-certified hardware. The solution significantly reduces your on-site prep, test, and setup time, while providing streamlined single-vendor purchasing, deployment, and service.

EMC Avamar is a backup and recovery product with integrated global source data deduplication technology. It solves the challenges associated with traditional backup by delivering fast, daily, full backups for VMware[®] environments, remote offices, and LAN/NAS servers in the data center.

Unlike traditional backup methods, Avamar eliminates redundant sub-file data segments at the source (client) before it's transferred across the network and stored to disk. Network bandwidth required for backup is reduced by as much as 500 percent across existing WAN/LAN links and virtual infrastructure.

Avamar deduplicates backup data globally, across sites and server. This can reduce by 50 times total back-end disk storage requirements. It encrypts both in-flight and at-rest data, enabling secure, cost-effective, long-term on-disk retention.

Flexible deployment options

Avamar Data Store is the fastest way for you to deploy a physical Avamar server. Build-to-order and pre-racked configurations simplify deployment and reduce costs, while tool-less rails streamline field installation and upgrades. An entry-level Avamar Data Store is ideal for remote offices when fast, local backup and recovery are priorities.

For larger offices and data centers, Avamar Data Store configurations help you to retain the equivalent of several petabytes of cumulative traditional backups that can be immediately recovered in a single step, eliminating hassles and risks associated with offsite tape storage.

Scalability, high availability, and reliability

Unlike many traditional server deployments, the Avamar server utilizes a scalable grid architecture that enables linear performance and storage increases by adding storage nodes. Each incremental node increases CPU, memory, I/O, and disk capacity for the entire grid. When adding disk storage, data is automatically load-balanced online without compromising deduplication efficiency or system performance.

When traditional backup solutions fail, data is often lost. To prevent this, Avamar employs patented redundant array of independent nodes (RAIN) technology to provide high availability and fault tolerance across nodes in an Avamar grid, eliminating single points of failure. Optional redundant switches and NICs are available for failover and high availability. Avamar system integrity is verified twice daily via internal system checkpoints, and Avamar verifies the recoverability of all backup data daily. Backup data can also be efficiently and securely replicated to another Avamar server for disaster recovery.

Managing Avamar Data Store is easy, with features such as remote management and e-mail-home capabilities, including diagnostics. These can be integrated with your management frameworks via SNMP.

Specifications

Capacity

Avamar Data Store systems may be configured with 1 TB, 2 TB, or 3.3 TB storage nodes for up to 52.8 TB of deduplicated disk storage capacity. Specialized utility and NDMP accelerator nodes are also available.

	Max. config. (16 storage nodes)	Single-node (standard-density/high-density)
Usable licensed deduplicated disk storage capacity	52.8 TB	1.0 TB/2.0 TB/3.3 TB
Equivalent cumulative, traditional backup storage	Up to several PB	Up to 114 TB

Connectivity

Gigabit copper Ethernet connection

Protocol support

TCP/IP

Availability and supportability features

Optional redundant switch and NIC for fail-over, if needed

Static trunking of switch uplink to protect against network uplink failure

Patented RAIN architecture for high availability and fault tolerance across nodes

Hot-swappable disk drives and power supplies

Spare storage node for redundancy

Remote Access Capability (RAC) allowing remote power On/Off/Reboot/Diagnostics even when powered down

Field-Replaceable Units (FRU) for simplified maintenance

Non-disruptive software maintenance and updates

Avamar server integrity and data recoverability verified daily

Secure replication for disaster recovery

RAID protection to survive any disk failure

Premium-level support ensures four-hour onsite replacement parts (24x7)

Dimensions (installed)

Height	Width	Depth	Weight
(in/cm)	(in/cm)	(in/cm)	(lbs/kgs)
75/190	24/61	39.4/100	2,500/1,134

Dimensions are for the multi-node Avamar Data Store, fully populated with 16 nodes and switch.

Service Area: 30in/76 cm – front; 36 in/91 cm – rear; 18 in/45.7 cm – top

Power specifications

	North American	International
Input voltage (VAC)	200-240	200-240
Frequency (Hz)	50-60	50-60
Current	30A Single phase	30A Single phase
Power connector	L6-30P Or RS 3750DP (qty: 4/rack)	IEC-309-332P6 IP-57P (Australia) (qty: 4/rack)
User-supplied power receptacle	L6-30R or RS 3750DR (qty: 4/rack)	IEC-309-332R6 IP-57R (Australia) (qty: 4/rack)

Environmental specifications

Temperature (oF/oC) operating	50-95/10-35 (-40-149/-40-65 non-operating)
Altitude (ft/m) max.	10,000/3,000 operating (25,000/7,600 non-operating)
Humidity (%) non-condensing	20-80 (10-90 non-operating)
Maximum power consumption per cabinet (VA)	6,400
Maximum heat dissipation per cabinet (BTU/hr)	21,696
Raised floor	Not required

Power and heat dissipation ranges are maximums for an Avamar Data Store with 16 nodes and switch.

Avamar TB capacity licenses are measured in decimal (e.g. 1TB = 1,000,000,000,000 bytes). Licensable capacity includes deduplicated customer backup data and RAIN parity data (for RAIN-based systems).

Regulatory and agency certifications

UL Listing/Recognition to UL60950 (safety-US)

EN55022: 1998 (Europe), EN55024: 1998 (Europe),

CSA Certificate or C-UL Listing/Recognition to EN61000-3-2 (Europe), EN61000-3-3 (Europe), and
CSA 22.2 No.60950 (safety-Canada)

VCCI Approval to V.3 (Japan)

TUV License to EN 60950 (safety-Europe)

ACA C-tick Approval to AS/NZS CISPR22 (Australia)

TUV CB Certificate to IEC 60950 (safety/International)

MIC (Korea)

FCC Part 15B class A (US)

GOST (Russia)

Industry Canada ICES-003 class A (Canada)

IRAM (Argentina)

CISPR22: 1997 3rd Edition Class A (International)

BSMI Approval to CNS13438 (Taiwan)



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