EMC Avamar Data Store is the easiest and fastest way to deploy a physical Avamar server. It combines EMC certified hardware and EMC Avamar backup and recovery software in a fully integrated, scalable, pre-packaged solution. It eliminates the hassles and complexity of working with multiple vendors for hardware, software, and support. As a turnkey solution, Avamar Data Store significantly reduces on-site setup time, while providing a single point of contact for purchasing, deployment, and service.

EMC Avamar is backup and recovery software with integrated data deduplication, ideal for protecting virtual environments, NAS systems, remote offices, desktop/laptop systems, and business-critical applications. By deduplicating backup data at the client, Avamar provides fast, daily full backups via existing infrastructure and network links. And by deduplicating data across sites and servers, Avamar can dramatically reduce required storage by up to 50x over reasonable retention horizons.

**FLEXIBLE DEPLOYMENT OPTIONS**

Deploying an Avamar server has never been easier. 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 from disk, eliminating the hassles and risks associated with tape storage.

For mid-market environments, the new EMC Avamar Business Edition provides a competitively priced, conveniently sized, turnkey deduplicated backup solution. This full featured solution eliminates the need to replicate data to another Avamar system.

**SCALABILITY, HIGH AVAILABILITY, AND RELIABILITY**

Unlike many traditional server deployments, Avamar utilizes a scalable grid architecture, enabling linear performance and storage increases by simply adding storage nodes. Each additional 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, redundant power and internal networking, and RAID to provide high availability across nodes, eliminating single points of failure.

For reliability, Avamar Data Store utilizes enterprise-class components. In addition, 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 replicated to another Avamar server for disaster recovery. And for security, backup data can be encrypted in-flight and at-rest enabling safe and cost effective disk-based storage.
MANAGEABILITY AND SUPPORT
Managing an Avamar Data Store is easy and convenient. Systems can be securely accessed via existing network links and integrated with popular management frameworks via SNMP for remote access anywhere, anytime. As a completely integrated solution from EMC, system updates are pre-qualified and tested so that you can apply them quickly and safely, without worrying about component compatibility issues.

For prompt and simplified service, administrators can utilize proactive system email home, monitoring via ConnectEMC, and remote access through the optional EMC Secure Remote-Gateway Server. Premium support provides onsite replacement parts and service within four hours (where available) for peace of mind. In addition, support is accessible at any time via live web chat, telephone, web-accessible documents, and technical advisory forums to name a few. Whatever your preferred communication method, EMC is ready to help.

Specifications

CAPACITY
Avamar Data Store systems are available from as little as 2 TB up to 124 TB of deduplicated disk storage capacity. Specialized management, media access, and NDMP Accelerator Nodes round out the offering.

<table>
<thead>
<tr>
<th>Scalable Architecture (up to 16 storage nodes)</th>
<th>Single-Node (may require replication)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usable licensed deduplicated disk storage capacity</td>
<td>6 to 124.4 TB</td>
</tr>
<tr>
<td>Equivalent cumulative, traditional backup storage</td>
<td>Up to several PB</td>
</tr>
</tbody>
</table>

CONNECTIVITY
Gigabit copper Ethernet connection.

PROTOCOL SUPPORT
TCP/IP

DIMENSIONS* (INSTALLED)
<table>
<thead>
<tr>
<th>Height (in/cm)</th>
<th>Width (in/cm)</th>
<th>Depth (in/cm)</th>
<th>Weight (lbs/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75/190</td>
<td>24/60</td>
<td>39.4/98.5</td>
<td>2,600/1,182</td>
</tr>
</tbody>
</table>

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

Service Area: Front 32.8in/82 cm; Rear 36 in/91 cm; Top 18 in/45.7 cm
AVAILABILITY AND SUPPORTABILITY FEATURES

- Patented RAIN architecture for high availability across nodes
- RAID protected storage
- Redundant power distribution and network connections
- Hot-swappable disk drives and power supplies
- Optional spare storage node for redundancy
- Remote Access Capability (RAC) allowing remote power On/Off/Reboot/Diagnostics even when powered down
- Non-disruptive software maintenance and updates
- Avamar server integrity and data recoverability verified daily
- Daily checkpoints and rollback capability
- Secure replication for disaster recovery
- Premium-level support ensures four-hour onsite replacement parts (24x7)
- Automated fault notifications and service dispatch

POWER SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>North American</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage (vac)</td>
<td>200-240</td>
<td>200-240</td>
</tr>
<tr>
<td>Frequency (hz)</td>
<td>50-60</td>
<td>50-60</td>
</tr>
<tr>
<td>Current</td>
<td>30A single phase</td>
<td>30A single phase</td>
</tr>
<tr>
<td>Power connector</td>
<td>L6-30P Or RS 3750DP (qty: 2 or 4/rack depending on load)</td>
<td>IEC-309-332P6 IP-57P (Australia) (qty: 2 or 4/rack depending on load)</td>
</tr>
<tr>
<td>User-supplied power receptacle</td>
<td>L6-30R or RS 3750DR (qty: 2 or 4/rack)</td>
<td>IEC-309-332R6 IP-57R (Australia) (qty: 2 or 4/rack)</td>
</tr>
</tbody>
</table>

ENVIRONMENTAL SPECIFICATIONS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°F/C) operating</td>
<td>50-95/10-35 (-40-149/-40-65 non-operating)</td>
</tr>
<tr>
<td>Altitude (ft/m) max.</td>
<td>10,000/3,000 operating (25,000/7,600 non-operating)</td>
</tr>
<tr>
<td>Humidity (%) non-condensing</td>
<td>40-55 (recommended) 20-80 (worst case) 10-90 (non-operating)</td>
</tr>
<tr>
<td>Maximum power consumption per cabinet (VA)</td>
<td>5,143</td>
</tr>
<tr>
<td>Maximum heat dissipation per cabinet (BTU/hr)</td>
<td>17,440</td>
</tr>
<tr>
<td>Raised floor</td>
<td>Not required</td>
</tr>
</tbody>
</table>
Power and heat dissipation ranges are maximums for a maximum Avamar Data Store configuration (16 active storage nodes, utility node, spare storage node, and two internal switches).

Avamar TB capacity licenses are measured in decimal (e.g., 1 TB = 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

Safety Agency Compliance and Certifications
Safety of Information Technology Equipment
- CSA 22.2 60950-1 2nd Edition
- IEC 60950-1 2nd Edition
Safety of Information Technology Equipment, including electrical business equipment
- EN 60950-1 2nd Edition
- UL 60950-1 2nd Edition

EMI /EMS COMPLIANCE AND CERTIFICATIONS STANDARDS

FCC Part 15 Class A, Radio Frequency Device Requirements
ICES-003 Class A, Interference-Causing Equipments Standard Digital Apparatus
CE Marking, European EMC Directive
VCCI Class A, Voluntary Control Council for Interference
AS/NZS CISPR22 Class A, Electromagnetic Interference – Limits & Methods of Measurement of ITE
CNS13438 - BSMI EMC Requirements
KCC - RRA EMC

CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, contact your local representative or authorized reseller—or visit us at www.EMC.com.

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