PolyServe Matrix HA

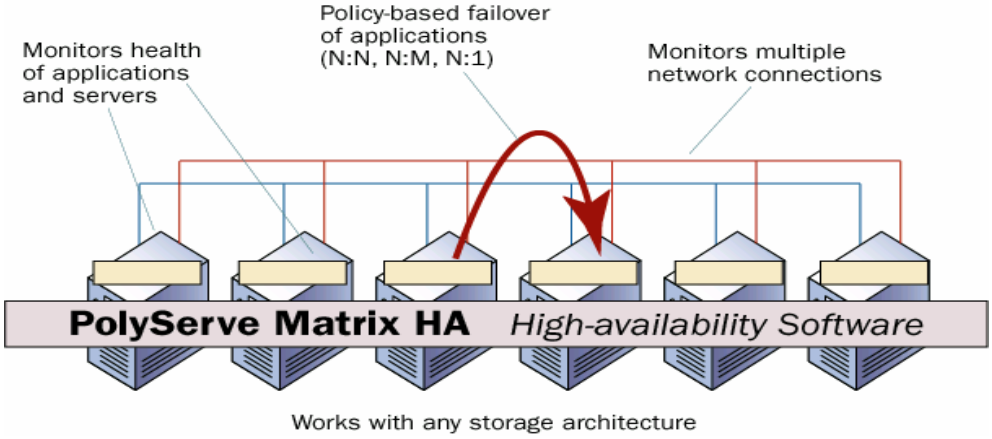
High Availability Software for Managing Applications on a Cluster of Intel-architecture Servers

PolyServe Matrix HA software provides high availability and application management features for a cluster of Intel-architecture Linux or Windows servers. Matrix HA allows data center architects to build highly available, fault tolerant, resilient server clusters. By automatically monitoring the health of applications, server hardware, storage subsystem, and network connections, Matrix HA increases availability of applications while reducing the complexity and cost of managing both the servers and the applications themselves.

PolyServe also offers Matrix HA features integrated with an enterprise-class cluster file system in the PolyServe Matrix Server product.

Matrix HA Features and Benefits

- Ensures continuous application uptime despite multiple hardware or software failures
- Granular, rapid monitoring of server, storage, network, and application health – manages both network and server failover
- Enables N:N, N:M and N:1 failover configurations with intuitive management console
- SNMP administration and ability to monitor SNMP devices
- Server group administration and configuration from anywhere in the enterprise
- Start, stop, and move applications around cluster from a central management console
- Supports multiple NIC cards and ability to set traffic routing preferences
- Network interface failover/backup pairs allows servers and applications to survive common “cable pull” events



PolyServe Matrix HA reduces operating costs by improving the administration of the I.T. assets in a data center. For the administrator, PolyServe Matrix HA is a powerful tool that enables the data center operator to take full advantage of the cost-effectiveness and price/performance of new, low-cost, thin- and high-density server farms.

Application Support

PolyServe Matrix HA provides monitoring and recovery support for the following applications:

- Web Servers (any HTTP listener)
- Application Servers (IBM WebSphere, BEA WebLogic and other app servers)
- Infrastructure Services (FTP, NIS, and NFS)
- Databases (Microsoft SQL Server, IBM DB2, and Oracle)
- Email (SMTP, POP3, and IMAP4 servers)

PolyServe Matrix HA is extensible and easily customized. Administrators can easily develop custom application monitors and create custom application failover and recovery modules for other applications.

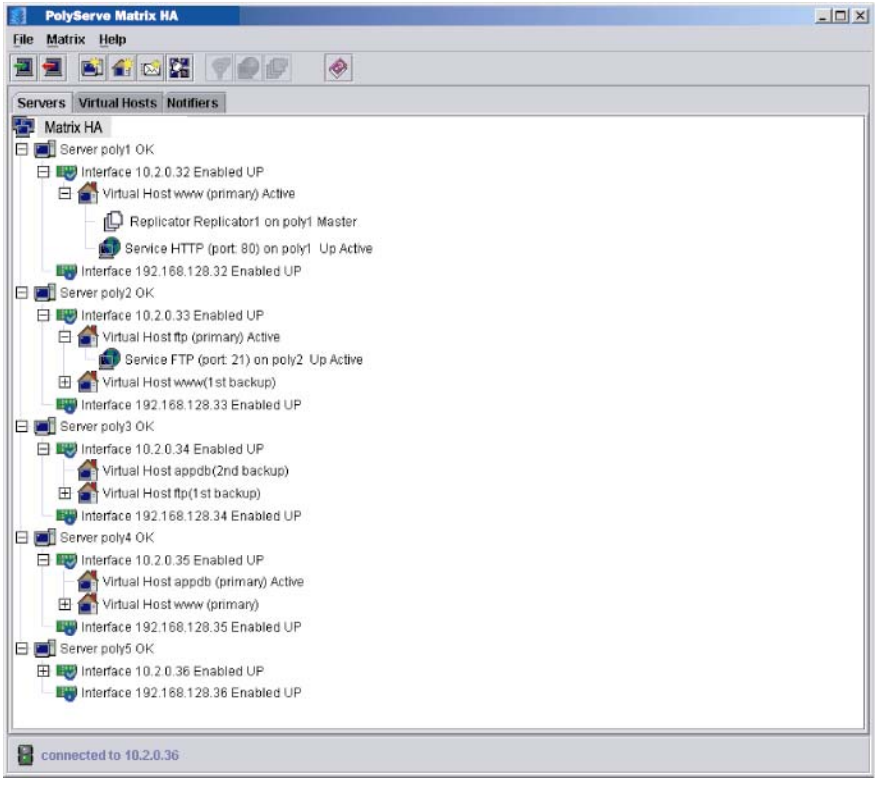


Figure 2 - PolyServe Matrix HA Management Console

PolyServe Matrix HA Features and Benefits

Feature	Description and Benefit
Application Management	Administrator can control which applications run on individual servers and can move, start and stop and monitor applications.
Scalability	Designed to support high-density environments—up to 16 servers.
Hot Swap	Supports automatic failover and failback - if a blade or server fails and is replaced, Matrix HA moves the workload off the blade or server (on failure) and automatically back on to a designated blade or server (on replacement).
Flexibility	Can be configured to provide high availability across blades or servers on an n:1, n:n, or n:m basis, as well as cascading and list-ordered failover. This provides the flexibility to take advantage of blade and high-density architecture systems.
Multi-OS Support	Identical console interface and functionality on Linux and Windows.
Distributed Central Configuration	All nodes can be configured from a single place. Nodes can even be reconfigured when they are down. When they come back up, they will learn their new configuration before joining the matrix. PolyServe Matrix HA distributes the configuration information to every node in the matrix providing no single point of failure.
Ease of Use	All nodes can be centrally managed from a single GUI on any node. Convenient CLI scripting language for automating functions.
Device Management	Unique ability to separate physical device monitoring from application monitoring
Storage Independence	Dual-ported SCSI or Fibre Channel storage architecture is not required. All functions are available to all nodes, regardless of storage architecture.
Integration with System Management Applications via SNMP	Integrates with management software that supports standard SNMP protocol such as IBM Tivoli, HP Openview, and CA Unicenter. Provides full featured SNMP MIB with SNMP get, set, and trap capabilities.
Multiple NIC Support	Supports up to four Network Interface Cards (NICs) for public and private network traffic. Supports failover of traffic from one physical interface to another interface on the same sub-net, ensuring that there is no single point of failure at the Network interface layer. Specific NICs can be assigned for private and public traffic.
Network interface failover/backup pairs	Allows servers to survive common 'cable-pull' events without the need for the application to fail-over to a backup server – this results in less downtime.
Enhanced Replication Engine	Replication engine synchronizes data and files across multiple nodes. Supports encrypted replication, supports pre-set time-based replication.

Minimum System Requirements

	Linux	Windows
Operating System	Red Hat Advanced Server Red Hat	Microsoft Windows 2000
Processor	Intel Pentium or higher	Intel Pentium or higher
Memory	64 MB RAM	128 MB RAM
Disk Space	30 MB	35 MB
Network	Ethernet 10/100/1000 port	Ethernet 10/100/1000 port

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