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TOP 10 SOLUTION SUMMARY

Hitachi Dynamic Link Manager Advanced Software Compared to OS-based Alternatives

Hitachi Dynamic Link Manager Advanced software offers robust multipath SAN connections between servers and storage systems with fault tolerant failover.

Multipathing, the ability for servers to use more than one path to a storage device, has always been a key element of high availability storage solutions, as potential failures involving the physical data path components (such as host bus adapters, cables, switches, etc.) between the server and storage device can threaten the availability of mission critical applications. In addition to enabling the use of multiple storage paths, multipathing can also ensure proper load balancing of I/O traffic to further improve application performance.

Hitachi Dynamic Link Manager Advanced provides comprehensive path failover and failback to ensure higher data availability and accessibility. Automatic load balancing helps to maintain outstanding system performance by balancing workloads across all available paths. If one path were to fail, Hitachi Dynamic Link Manager Advanced would automatically switch the I/O to an alternate path, helping to ensure that an active route to data is always available.

For organizations overwhelmed by the difficulties of managing multiple storage paths for large numbers of servers, Hitachi Dynamic Link Manager Advanced provides simple, integrated storage path management and reporting to increase administrator efficiencies and minimize configuration errors. Administrators can optimize application performance by controlling path bandwidth — and keep applications online to perform maintenance tasks that typically require taking a path down by easily switching to and from alternate paths. Automatic path health checks and reporting from each host improve system reliability, reduce downtime and aid in rapid problem troubleshooting.

Microsoft Windows MPIO (Multipath I/O) drivers enable servers running on the Microsoft Windows operating system to support heterogeneous connectivity to multivendor storage systems. As Microsoft further expands the functionality offered by Windows MPIO, organizations may question the need to purchase multipathing solutions like Hitachi Dynamic Link Manager Advanced from storage vendors. The following list of advantages address this question.

Top 10 Advantages

The top 10 advantages of using Hitachi Dynamic Link Manager Advanced software that are not available when using operating system drivers such as Windows MPIO include:

1. **Integrated Multipathing Management**
   Hitachi Dynamic Link Manager Advanced provides a single console for integrated path management across multiple servers, operating systems and storage system configurations.

2 **Centralized Path Alerting and Control**
   Hitachi Dynamic Link Manager Advanced provides central reporting of path status alerts and errors generated by each Dynamic Link Manager Advanced host.

3. **Storage-based Load Balancing**
   Hitachi Dynamic Link Manager Advanced allows administrators to set the load balancing algorithm type for individual LUNs in order to improve access times for hosts connecting to data sources with both random and sequential I/O characteristics.

4. **Automated Path Network Scans**
   Hitachi Dynamic Link Manager Advanced software's health check facility provides continuous path status monitoring at administrator specified intervals.

5. **Aggregated Host Groups**
   Hitachi Dynamic Link Manager Advanced provides secure host grouping to create customized management views.

6. **Path Availability Reporting**
   Hitachi Dynamic Link Manager Advanced provides path status reporting for individual hosts or aggregate host groups to ensure service level objectives are met and problems are identified quickly.

7. **Additional Load Balancing Algorithms**
   Hitachi Dynamic Link Manager Advanced provides a wide variety of data path load balancing algorithms designed to enhance I/O throughput and improve application performance:
   A. Least I/O
   B. Least Block
   C. Extended Least I/O
   D. Extended Least Block
   E. Extended Round Robin

8. **Integrated Storage Multipathing**
   Hitachi Dynamic Link Manager Advanced provides the best optimized and integrated multipathing solution for Hitachi storage systems.

9. **Ease of Installation**
   Hitachi Dynamic Link Manager Advanced enables easy integration of path management with autodiscovery function for new Hitachi Dynamic Link Manager instances.

10. **Operating System and Application Vendor Qualifications**
    Hitachi Dynamic Link Manager Advanced provides extensive testing and certifications for various applications across multiple operating systems.

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