REO SERIES™
Protection OS™
INTELLIGENT, EMBEDDED DATA PROTECTION SOFTWARE

Overland REO Protection OS™ software, included with all REO SERIES™ Disk-Based Backup and Recovery Appliances, embeds data protection intelligence and enables future software enhancements. It provides REO SERIES users with an intelligent and flexible platform designed to deliver fast, reliable data backup and recovery while reducing operating costs. And it allows REO appliances to be easily integrated into a wide range of backup environments without changes to policies or procedures.

Unlike other disk-based backup systems, only the REO SERIES utilizes Protection OS software to deliver a core set of volume and device virtualization, management and connectivity features. The REO Protection OS is a storage operating system designed specifically for the REO SERIES appliances. In addition, Protection OS serves as a foundation for enhanced functionality, which is easily deployed to REO SERIES appliances through existing and future software PACs. This flexible architecture enables storage professionals to easily implement new functionality while retaining a single, stable REO hardware platform. As a result, the REO SERIES can easily meet ever changing data protection needs while preserving the initial hardware investment.

Storage managers can quickly and easily modify the REO appliance to adapt to changing data protection requirements.

REO SERIES with Protection OS virtualization provides significant performance and management benefits that are not available with general purpose disk-based backup systems. For example, when configured as virtual tape, REO appliances write backup data sequentially and in large blocks, which results in greater backup performance. In addition, REO virtual tape appliances are not susceptible to disk fragmentation, viruses, manual volume management, hackers, ongoing tuning, or file system overhead—all of which are common management problems incurred when using general purpose disk-based backup systems.

With the ability to emulate a physical tape library, existing backup software can easily manage the REO appliance, track and move virtual tape cartridges, and maintain retention policies. And backup software support for multiple media formats allows a REO virtual tape library to be combined with all popular open systems or Windows-based backup software, physical tape drives or libraries as part of a disk-to-disk-to-tape data protection solution.

Dynamic Virtual Tape

Dynamic Virtual Tape™ (DVT) is a patent-pending technology that ensures that no storage capacity is wasted while eliminating the manual effort and guesswork of sizing, configuring, provisioning, and deleting virtual tape cartridges. With DVT, users can create virtual tape cartridges that automatically expand or shrink as needed to match the exact capacity requirements of the backup operation.

A dynamic virtual tape cartridge is created with an initial capacity of just 1 GB. As a backup job writes data, the virtual cartridge automatically expands to exactly the size of the data being written to it, up to two terabytes per cartridge. If the backup job requires more space, then the data can span to another dynamic virtual tape cartridge under the control of the backup software. And as with physical tape, data can be appended to the virtual cartridge after it has been created. When the backup

Volume and Device Virtualization

Protection OS software simplifies set-up and administration by offering the option to manage the REO SERIES appliances as disk and/or virtual tape drives and/or virtual tape libraries rather than managing physical RAID sets and disk volumes. Each REO appliance can be easily configured as virtual tape drives, virtual tape cartridges, virtual tape libraries, and/or disk volumes (LUNs) for maximum flexibility.

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software signals that the data on the cartridge is ready to be expired or archived, the virtual tape cartridge is reset to a nominal size of one gigabyte and the unused capacity is made available to other backup jobs.

Example—Dynamic Virtual Tape:

Also, dynamic virtual tape requires no ongoing administration – thus eliminating the time consuming process of allocating, provisioning, and administering storage capacity as the amount of data grows over time. Dynamic virtual tape functionality is available when using REO appliances as virtual tape drives and/or virtual tape libraries.

As shown below, each REO SERIES appliance can be easily configured with any combination of virtual tape drives, virtual tape cartridges, virtual tape libraries, and/or disk volumes (LUNs) for maximum flexibility. When configured as a virtual tape library, the REO appliance leverages advanced features available in backup software from VERITAS, Computer Associates, Legato, CommVault and others.

REO 9000 - Configuration Example:

• User definable - up to 64 virtual tape drives and/or disk volumes (LUNs)
• Dynamic Virtual Tape functionality

Disk Volumes (LUNs) Virtual Tape Drives

Virtual Tape Libraries

° up to 32 virtual drives
° up to 180 virtual cartridges
° up to four library partitions
° Dynamic Virtual Tape functionality

° Works with any open-systems physical tape drive or library

Easy to Deploy, Administer and Manage

The REO SERIES appliances are compatible with all major backup software applications and are easily integrated into existing Ethernet (iSCSI) or Fibre Channel environments. In addition, the REO includes an intuitive and robust browser-based graphical user interface for easy configuration and management. Users can proactively monitor REO appliances and receive e-mail alerts for instant notification of status changes. The REO SERIES with Protection OS solves key data protection challenges by enabling fast, reliable backup and recovery while reducing operating costs. And the REO compliments existing tape systems by allowing them to be used for archival purposes in support of off-site storage or regulatory compliance objectives.

KEY BENEFITS:

Flexible Functionality—REO SERIES can be easily configured as disk volumes (LUNs), virtual tape drives, virtual tape cartridges, and/or virtual tape libraries.

Performance—when configured as virtual tape, data is written sequentially and in large blocks for fast, reliable backup and recovery operations.

Easy Integration—compatible with all popular open systems or Windows-based backup software, physical tape drives or libraries and easily connects to Ethernet (iSCSI) or Fibre Channel networks for seamless integration into existing backup environments.

Dynamic Virtual Tape—patent pending technology, ensures that no storage capacity is wasted and eliminates the manual effort and guesswork of sizing, configuring, and provisioning virtual tape cartridges.

Virtual Tape Library—provides user definable virtual tape library drives, cartridges, and partitions.

Investment Protection—Protection OS allows the REO SERIES hardware platform to be easily enhanced via current and future software PAC options (e.g.: Overland REO Multi-SitePAC ™).