

storage domain

A storage domain is **a logical grouping of physical storage (like drive groups) that allows for the organized management of data in IT environments**. It can be used to partition storage for specific purposes, such as separating data by department, access frequency, or confidentiality level. In virtualization, it's a collection of images and virtual machine disks, which can be either a block device (SAN) or a file system (NAS).

Key functions and benefits

Logical grouping: A storage domain creates a virtual storage pool from different drive groups, providing flexibility in how you group and manage data.

Performance management: Assigning specific volumes to a storage domain can reduce I/O contention among volumes, improving performance.

Policy enforcement: It allows administrators to assign different policies, such as those for deduplication or backups, to different sets of data.

Data security: Domains can be created to enforce confidentiality by grouping highly sensitive data separately. **Virtualization support:** In virtualization platforms like Red Hat Virtualization, storage domains are used to store virtual disks, templates, and snapshots for virtual machines.

Common examples

A domain for "Customer Data" that is separate from a "Product Data" domain.

A domain for high-performance applications that uses faster storage tiers.

A domain for virtual machine backups that has a different policy than the domain for the live virtual machines.

A domain that is specific to a particular department, such as the marketing department's files.

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