

Increase availability to critical Logical Drives

Xyratex 5000 Series RAID offers an optional snapshot feature that provides an additional level of data protection and the means to improve production data utilization. Snapshot enables non-production, backup or analysis applications to access an up to date copy of production data while the production data remains online and user-accessible. Snapshot is designed for users whose data availability cannot be disrupted by routine management functions. Snapshot supports round-the-clock processing as it stages data for operations such as backup, data mining/analysis and work distribution. Snapshot is especially useful in operations requiring a quick copy of data.

Snapshot images are fast and efficient, with essentially no disruption to the user. A momentary suspension of processing allows application data to synchronize to a known state preparing the snapshot volume for use.

A snapshot logical drive is a virtual point-in-time image of a source logical drive. It is the logical equivalent of a complete physical copy, but is created much more quickly and requires less disk space. Snapshot logical drives appear and function as standard logical drives. They are host addressable and can be read or copied to create a real copy of a point-in-time. Snapshot is an integral component of the Series 5000 RAID code that runs in the RAID controller rather than on a host – maximizing performance while ensuring full availability to data as applications continue to process. Through its copy-on-write technology, snapshot preserves data in its original form in the Overwrite Data Area. This functionality asks for minimal dedication of storage capacity, typically a mere 10 percent to 20 percent of source logical drive, enabling it to generate several snapshots within the space required for a single mirror.

Fast recoveries to point-in-time versions of data via “snap-back” operations. A snap-back reverses all the updates made to all of the data stored on a source logical drive to the point-in-time the snapshot was established. Users can quickly back-out erroneous changes and recover critical data.

Technical Specification

Capacity

- Up to twenty-four snapshots can be created per Logical Drive
- One common and shared Overwrite Data Area per Logical Drive
- Up to 8 Overwrite Data Areas per storage system
- Expandable capacity with statistical information and a warning as the Overwrite Data Area approaches maximum capacity

Placement

- User defined Overwrite Data Area
- Same or different RAID type or number of drives
- Snapshot logical drives can be mapped and accessed by any host in the SAN
- Production data available to secondary hosts for read and backup operations

Graphic user interface

- Easy-to-use wizards
- Command line interface for scripting snapshot functions, eg automated backups

Available on Xyratex Model F5402E FC-SAS/SATA-II and Model E5402E SAS-SAS/SATA-II RAID offerings as a licensed feature.

Features

- Protect from application errors
- Enables non-disruptive on-line backup of Logical Drives to removable media
- Virtual point-in-time images of Logical Drives
- Transparent sharing of point-in-time images of Logical Drives
- Same host or other host LUN mapping to virtual Logical Drives
- Less storage required than with mirroring
- Fast restore from point-in-time snaps of Logical Drives
- Display active snaps, when established, initiate snaps, delete snaps via GUI or CLI

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