

Syneto ZFS Storage. Why is it smarter, faster and more reliable than comparable Linux systems?



Highlights

- Unified NAS and SAN
- High availability
- Disaster Recovery
- Business Continuity
- Storage Efficiency
- Unlimited Backups
- Manage more storage
- Move data nondisruptively

About the OS

Syneto ZFS Storage OS was designed from the start to provide new levels of flexibility and space scalability that translate into lower costs and no administrator headaches. But what would low costs be without seamless backups and infinite business continuity?

This is why instantaneous Backups and a powerful set of High Availability features are built in from the start.

With integrated storage efficiency features like deduplication, data compression and thin provisioning, you can:

- Use 50% less space
- Cut costs on power / cooling
- Reclaim old storage
- Spend less on personnel

Introduction

Syneto Storage is built on the ground-breaking ZFS filesystem which offers it a set of unique advantages compared to similar platforms out there today. Any modern data storage OS requires two important functional attributes:

- The ability to store more data on less space
- The capability to backup the data in a fast and efficient manner

For the purpose of this document, the Syneto Storage OS and the unique set of smart features it offers is placed side by side with a Linux OS with Logical Volume manager, Raid and the Ext4 filesystem.

What you see below is a comparison of features which set apart Syneto **ZFS Storage**. For the purpose of fairness, the product to which it is compared is the comparable Linux OS with Logical Volume Manager, Raid and the Ext4 filesystem.

Raid Types

Raid 0

	
YES	YES

Raid 1

	
YES	YES

Raid 1 + 0

	
YES	YES

Raid 5

	
NO	YES

Raid 5 + 0

	
NO	NO

Raidz

Raidz is a software RAID-5 that offers better distribution of parity and eliminates the infamous “RAID-5 write hole” (data becomes inconsistent after a power loss).

	
YES	NO

Raidz + 0

	
YES	NO

Administrative tasks

Non-endian specific

	
YES	NO

Import/Export Datasets

	
YES	NOT AUTOMATED

dtrace & iostat for detailed IO usage

syneto ZFS STORAGE

 **redhat.** with LVM, Raid & Ext4

YES

NOT AUTOMATED

Snapshots / Backups

Backup while online

Syneto Storage with ZFS is capable of executing Backups / Snapshots while the system is online and running. This means insuring data safety does not require disruptive downtime.

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 **redhat.** with LVM, Raid & Ext4

YES

ONLY WHILE OFFLINE

Requires separate slice

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NO

YES

Uses more than 1% of space

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NO

YES

Rollback

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 **redhat.** with LVM, Raid & Ext4

YES

NO

Clones

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YES

NO

Emergency situations

Handles whole disk failure

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YES

YES

Checksum's all data

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YES

NO

Copes with disk corruption

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YES

NO

Automatic fault management

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YES

NO

Special Features

Data Compression

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YES

NO

Thin Provisioning

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YES

NO

Integrated NFS support

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YES

NO

Recursively apply filesystem attributes

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YES

NO

Built-in support for backup / restore

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YES

NO

Space shared between all filesystems

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 **redhat.** with LVM, Raid & Ext4

YES

NO