

# Rebuilding partition tables a DevOps story

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# SourceLair: an online IDE

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# SourceLair: an online IDE

- \* Still available at: <https://ide.sourcelair.com>
- \* Multiple co-located users
- \* Speedy fast development environments
- \* Code editing, Git and more
- \* Web servers and terminals

The need

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# The need

- \* Super fast, POSIX compatible filesystem
- \* Quickly available on the node
- \* All possible user scenarios should work

# s3fs and friends

- \* Infinitely scalable
- \* Cheap
- \* Available to multiple nodes

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- \* Not that fast
- \* Not POSIX compatible

# NFS

- \* A lot faster than s3fs
- \* Harder to scale, but Ϳ\_(ツ)\_/Ϳ
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- \* Does not support filesystem events
- \* If you need volumes, things get a lot more complicated, fast

# Local disks

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- \* POSIX compatible
- \* Can support more interesting filesystems, like btrfs

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- \* Needs user sharding
- \* Needs a good backup strategy

# The backup strategy

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- \* Daily or hourly, block-level backups
- \* Disk capacity notifications
- \* Notifications for backup failures

When *scheisse* hits the fan

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- \* JavaScript has node\_modules
- \* node\_modules have A LOT of files

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- \* Developers like JavaScript
- \* JavaScript has `node_modules`
- \* `node_modules` have A LOT of files
- \* Storage notifications count storage, not inodes...

# When *scheisse* hits the fan

\* Disks might be broken when rebooting while in a bad state

# When *scheisse* hits the fan

\* Disks might be broken when rebooting while in a bad state

\* Backups might have stopped working...

# When *scheisse* hits the fan

\* Email notifications might be going to the wrong mailbox

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# Recovery

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\* Try all the things...

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- \* Try all the things...
- \* Let's reflush the partition table!
- \* Block-level copy of the disk

# Recovery

- \* Try all the things...
- \* Let's reflush the partition table!
- \* Block-level copy of the disk **FAIL**

# Recovery

- \* Try all the things...
- \* Let's reflush the partition table!
- \* Block-level copy of the disk **FAIL**
- \* Google how disks are provisioned by default
- \* Cross your fingers
- \* Go!

# Food for thought

- \* Don't try this at home...
- \* Check your backups (existence + recovery) regularly
- \* Get notifications for success, as well as for failure
- \* Don't mess with `node_modules`

# Remove the (o) from DevO(o)ps

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