Being Green For Real



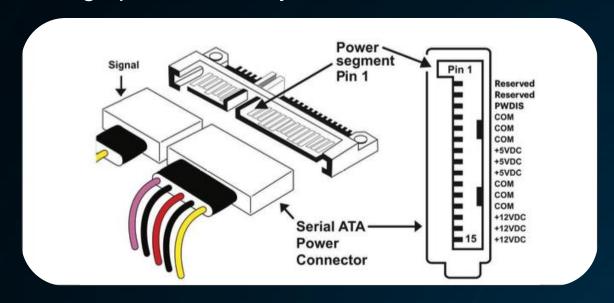
Leil Storage Innovates to Reduce Carbon Footprint

Host-Managed SMRs drives vs other HDD

Conventional HDD Data in discrete tracks Host-Managed SMR HDD Data in zones of overlapped tracks

ROLLOUT IN 2025

ICE "Power disable" feature to decrease storage power draw by 25% and more



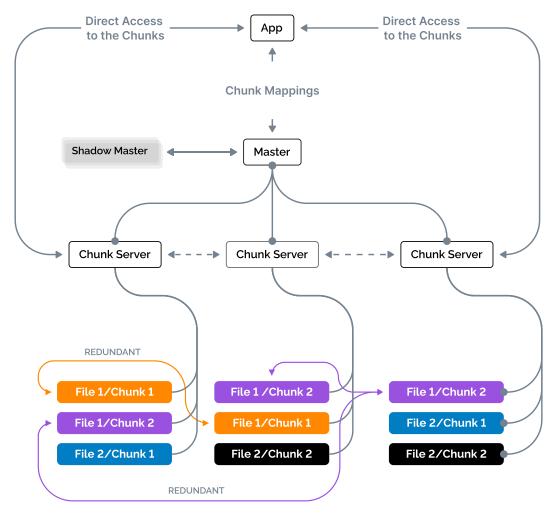
Leil Storage is a commercial closed-source product that extends SaunaFS distributed file system with these unique and proprietary green features to enhance its performance, efficiency and energy consumption.



SaunaFS

Open Source SaunaFS

- SaunaFS is a DFS written mostly in C++ which implements concepts introduced by the Google File System.
- SaunaFS is divided into:
 - Metadata Servers (master, shadows and metaloggers).
 - O Data Servers (chunkservers).
 - Olients (native Linux/Windows, NFS).
- In the Chunkserver side:
 - Files are divided into Chunks (up to 64 MiB).
 - 69 Chunks are logically divided into Blocks of 64 KiB.
 - Which is the minimum block size.



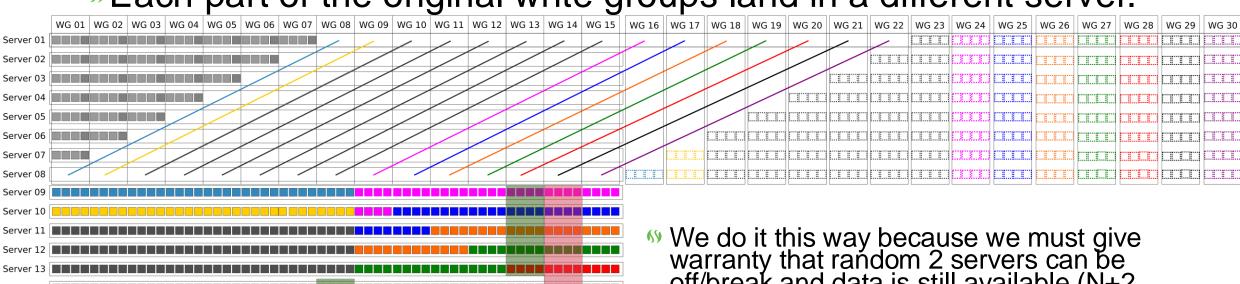
See https://en.wikipedia.org/wiki/Google File System



ICE's Ability to gradually grow.

The picture shows the complete procedure for growing from 8 to 16 servers, when only one server was added at the time.

Each part of the original write groups land in a different server.



We do it this way because we must give warranty that random 2 servers can be off/break and data is still available (N+2) protection)