

Moving DAOS from the Lab to a commercial offering

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Who are Croit?



- **Have been providing a supported Ceph implementation for over 5 years**
- **Have now applied the same philosophy to DAOS**

Making Open Source Simple

- **Making a DAOS deployment feel like deploying a storage appliance**
- **No longer a requirement to read pages and pages of manuals**
- **Turning deployment into click, click, next**
- **Providing a graphical view of the hardware and configuration**
- **Simplifying day two management and operational use**
- **Expand the audience for DAOS users**

Making Open Source Simple

The image displays the croit DAOS management interface, which is used for configuring and monitoring a DAOS cluster. The interface is divided into several sections:

- Setup:** This section allows for configuring the cluster. It includes fields for Cluster name (daos), MGR nodes (new-croit-node-01, new-croit-node-02), Network Protocol (ofi+sockets), and Network (10.10.10.0/24). A green 'SAVE' button is visible.
- Preflight check:** This section shows the results of a preflight check. It includes 'Hardware' and 'Drives' sections, both of which are marked with a green checkmark, indicating that the hardware is ready for deployment.
- Generated config:** This section displays the generated configuration file, which includes the following content:

```
1 ports 10001
2 transport_config:
3   allow_insecure: false
4 server_name: server
5 client_cert_dir: /etc/daos/certs/client
```
- Servers:** This section shows the NUMA layout of the servers. It includes a diagram of the server hardware, showing the Intel Xeon processor, memory (pmem0-pmem7), and NVMe drives (nvme0n0-nvme0n5). A 'SAVE' button is visible.
- PMEMs:** This section provides a table of the PMEMs (Persistent Memory) in the cluster. The table includes columns for Device, Capacity, Lock State, Health, and Firmware Version.

Device	Capacity	Lock State	Health	Firmware Version
pmem0	128GB	✗	Healthy	01.02.00.5417
pmem1	128GB	✗	Healthy	01.02.00.5417
pmem2	128GB	✗	Healthy	01.02.00.5417
pmem3	128GB	✗	Healthy	01.02.00.5417
pmem4	128GB	✗	Healthy	01.02.00.5417
pmem5	128GB	✗	Healthy	01.02.00.5417
pmem6	128GB	✗	Healthy	01.02.00.5417
pmem7	128GB	✗	Healthy	01.02.00.5417

The interface also includes a sidebar with navigation options: Status, Servers, DAOS, Ceph, Settings, and Logout.

Making Open Source Simple

- **Deploying OS and DAOS together through PXE boot**
- **Fast and repeatable deployment**
- **Providing a simple upgrade process**
- **Centralised logging and statistics**
- **Providing support**

iSCSI access to DAOS

- **TCMU Runner access to DAOS Container as an iSCSI LUN**
- **Allows Windows/VMWare direct access to DAOS storage**
- **Initial benchmarks are giving very favourable numbers**
- **Currently waiting to test on a production ready cluster for final performance numbers**
- **Seen as an interim step until NVMeoF is better supported**

Croit additional features

- **SMB onto DAOS**
- **API driven storage provisioning and management**
- **DAOS and Ceph integration TBA**
- **HTTP access to DAOS Objects being worked on**
- **Looking at other use cases where DAOS can be used to improve performance**

Or you could just.....

```
openSUSE Leap 15.3
windowslol:/daos # df
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/sdb        263174212   1879720 247856336  1% /
tmpfs           26289848      0 26289848  0% /mnt/wsl
tools          498911160 230434380 268476780 47% /init
none           26287556      0 26287556  0% /dev
none           26289848      4 26289844  1% /run
none           26289848      0 26289848  0% /run/lock
none           26289848      0 26289848  0% /run/shm
none           26289848      0 26289848  0% /run/user
tmpfs           26289848      0 26289848  0% /sys/fs/cgroup
drivers        498911160 230434380 268476780 47% /usr/lib/wsl/drivers
lib            498911160 230434380 268476780 47% /usr/lib/wsl/lib
tmpfs           26289848      0 26289848  0% /var/tmp
C:\             498911160 230434380 268476780 47% /mnt/c
D:\             7501448188 979796376 6521651812 14% /mnt/d
N:\            2000380924 932129040 1068251884 47% /mnt/n
dfuse           97656250 20523152 77133099 22% /daos
windowslol:/daos # ls
DDU v18.0.3.9.exe dws dws2 dws3
windowslol:/daos #
```

23% complete

Copying 1 item from Stuff (D:) to daos

23% complete

Speed: 2.67 MB/s

Name: openSUSE-Leap-15.3-ARM-JeOS-raspberrypi.aarch64-2021.05.31...

Time remaining: About 7 minutes and 30 seconds

Items remaining: 1 (1.65 GB)

Fewer details

Mount DAOS in windows :-)

Questions

?

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