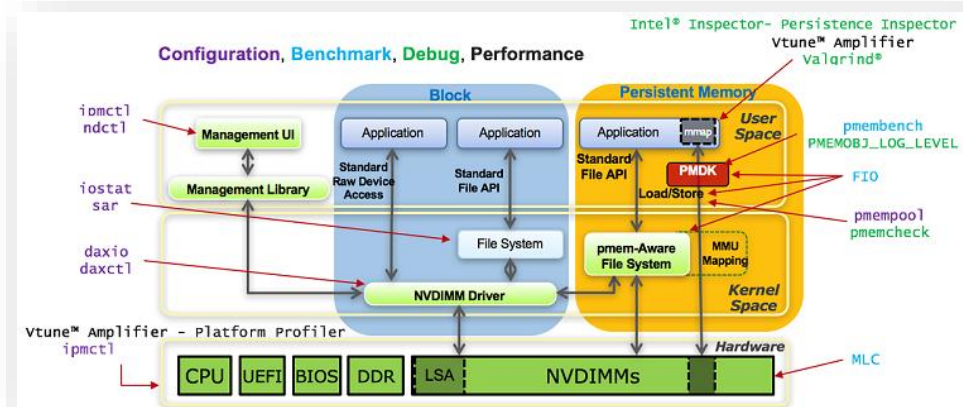


# Apache Pass Optane-based Memory System

Experimental Computing Lab (ExCL) managed by the ORNL Future Technologies Group

- Intel OPTANE Memory
  - 1.5 TB of OPTANE Memory (Persistent)
    - 12 \* 126 GiB NV DIMMS (2666 MHz)
  - 384 GiB of DRAM (Volatile)
    - 12 \* 32 GiB DRAM (2933 MHz)
- Accessed as filesystem or memory access mode / configurable at boot time
  - Most recent Linux Kernel deployed (5.2.0)
  - Intel PMM drivers and PMM tools deployed
  - Newer kernels built and deployed on request
  - Kernel-matched perf command to read memory performance and health instrumentation
- Supermicro X11DPU-Z+ motherboard
  - Intel Gold 6248
  - 2 CPUs \* 20 cores/socket \* 2 threads/core
  - Mellanox ConnectX-4 networking
  - 12 NVMe SSDs



<https://software.intel.com/en-us/articles/configure-manage-and-profile-intel-optane-dc-persistent-memory-modules>