NVME-mdev Kernel driver

BigDataStack Software Component developed by Red Hat

Description

NVMe-mdev kernel driver to have fast storage virtualization.

Features

This is a Kernel module which implements a virtual NVMe device which VMs can use as a drop-in replacement for PCI assignment. It allows sharing of NVMe devices between server VMs, with simple configuration and roughly the same performance as SPDK.

Areas of Application

Virtual Machines that require access to virtualized storage, such as the OpenShift on OpenStack VM use case.

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Market trends & opportunities

If merged on the Linux Kernel it will be available on every Linux distribution with a recent kernel version. However unclear if it will be accepted upstream in its current form.

Customer benefits

Speed up when accessing virtualized storage without complex configuration.

Technological novelty

New kernel driver implementing NVMe devices.

TRL level: 7

Find the Open Source code here:

This did not make it upstream, upstream submission can be found here: https://lore.kernel.org/patchwork/patch/1052204/