Kaminario K2 All-flash Storage for OpenStack

The Kaminario K2 all-flash array Cinder driver enables OpenStack environments to match the scalable and dynamic nature of the cloud with a differentiated storage array that can both scale-out and scale-up. Cost savings gained from a private cloud deployment are enhanced even further by using the most cost-efficient all-flash array that is able to introduce modern flash storage media and superior data-reduction features.
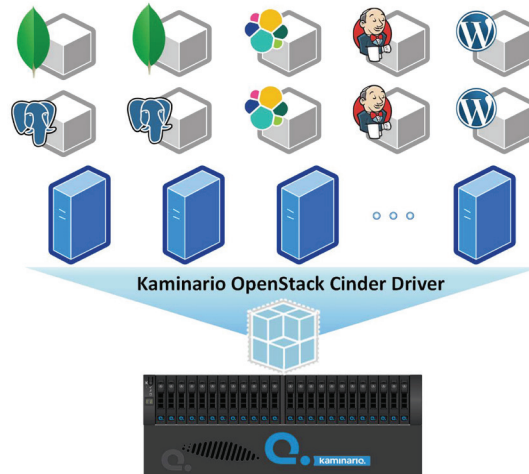
K2 and OpenStack Overview

The K2 all-flash array is the most cost-efficient general purpose storage platform that was designed from the ground up optimized for solid-state drive (SSD) flash storage and to accommodate multiple applications and workloads. Its unique scale-out/scale-up architecture allows the K2 to grow with customers' infrastructure needs, delivering agility and flexibility for today's demanding IT requirements.

OpenStack is a cloud operating system that controls large pools of compute, storage, and networking resources throughout a datacenter. K2's differentiated abilities to support mixed workloads and provide consistent and predictable high performance and low latency for multiple environments make it the ideal storage platform for hosting private and public cloud environments powered by OpenStack.

SOLUTION SUMMARY

- K2 all-flash storage array that is managed by the Kaminario OpenStack Cinder driver

- Scalable and agile storage architecture that matches the dynamic nature of the private cloud

- Cost-efficient shared storage platform that further increases cost savings gained from deploying private cloud environments

Using K2 to host multiple environments in an OpenStack deployment

Kaminario OpenStack Cinder Driver

OpenStack Key Benefits with Kaminario K2 All-Flash Array

- **Integrated Cinder driver** - Support for OpenStack versions Newton, Mitaka and Liberty

- **K2 architecture uniqueness** – Seamlessly scale-out and scale-up and support mixed workloads with consistent and predicable performance

- **Cost-efficiency** - Utilizes the most innovative cost-efficient flash media and superior data-reduction features such as inline deduplication and compression

- **Superior TCO** - Less than $1 per effective GB

K2 Gen6 All-Flash Array Specifications				
Scaled Configuration	1 K-Block	2 K-Blocks	3 K-Blocks	4 K-Blocks
Usable Capacity*	30TB - 1PB	60TB - 2PB	90TB - 3PB	120TB - 4PB
IOPS	Up to 370K	Up to 740K	Up to 1.1M	Up to 1.5M
Throughput	Up to 6.2GB/s	Up to 12.4GB/s	Up to 18.6GB/s	Up to 25GB/s
Latency	0.35ms			
Media (encrypted)	480GB / 960GB / 1.92TB / 3.84TB 3D TLC NAND SSDs			
Connectivity FC/iSCSI	FC: 4x 16Gbps iSCSI: 4x 25GbE	FC: 8x 16Gbps iSCSI: 8x 25GbE	FC: 12x 16Gbps iSCSI: 12x 25GbE	FC: 16x 16Gbps iSCSI: 16x 25GbE

Capacity is subject to drive size and the application data reduction ratio. For some datasets such as VDI the range will be higher.

About Kaminario

Kaminario, the leading all-flash storage company, is redefining the future of modern data centers.
To learn more, please visit www.kaminario.com.

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