



Press Release

KIOXIA KumoScale Software v3.20 Delivers Deployment Flexibility, NVIDIA Magnum IO GPUDirect Storage and OpenID Connect Support

Includes Additional Bare Metal Deployment Options



KIOXIA

**Challenge the Cloud Together
with KumoScale™ NVMe™ Flash
as a Service Software**



Düsseldorf, Germany, 13 April 2022 – [KIOXIA Europe GmbH](#) announces the release of version 3.20 of its [KumoScale](#) storage software built around the NVM Express over Fabrics (NVMe-oF) protocol. Designed for cloud-centric deployment at data center scale, the KumoScale storage platform delivers high performance NVM Express (NVMe) flash storage as a disaggregated networked service. Major features in KumoScale software version 3.20 include additional bare metal deployment options, seamless support for OpenID Connect 1.0, and support for [NVIDIA Magnum IO GPUDirect Storage \(GDS\)](#).

Additional Bare Metal Deployment Options

In addition to the KumoScale software's streamlined appliance install, KumoScale software version 3.20 adds an option to deploy on generally available commercial operating systems. Most large data centers deploy architectures that have very specific requirements for security, monitoring, telemetry and networking which requires that storage subsystems support OS customization to integrate into these environments seamlessly. KumoScale software "managed mode" enables complete flexibility for engineering and security administrators to configure, integrate and control the KumoScale software storage layer OS environment, while KumoScale software "appliance mode" provides simpler installation and automated deployment with reduced deployment complexity for small and medium enterprise customers but with more limited OS configurability.

NVIDIA Magnum IO GPUDirect Storage Support

Version 3.20 adds support for NVIDIA GDS. GDS enables a direct data path for direct memory access (DMA) transfers between GPU memory and storage, which avoids a bounce buffer through the CPU. This direct path increases system bandwidth and decreases the latency and utilization load on the CPU. KumoScale software behaves as a storage adapter to GDS.

"The KumoScale software-defined platform maximises the flexibility and cost-effectiveness of NVMe storage," Paul Rowan, Vice President SSD Marketing and Engineering, KIOXIA Europe GmbH. "It makes us proud to work with companies like NVIDIA and to offer support for NVIDIA Magnum IO GPUDirect Storage (GDS)."

"AI and other breakthrough cloud technologies have the potential to solve some of society's most difficult challenges - and they're transforming data center architectures," said Rob Davis, vice president of storage technology at NVIDIA. "NVIDIA's accelerated computing platform enables storage innovators such as KIOXIA to equip customer data centers with the extreme performance required to tackle next-generation workloads."

OpenID Connect Support

Version 3.20 adds support for third-party OpenID Connect 1.0. OpenID Connect is an identity layer on top of the OAuth 2.0 protocol that allows Clients to verify the identity of users and sessions based on the authentication performed by an Authorization Server for service account permissions. KumoScale software support for OpenID Connect simplifies security integration into

CSP data center environments.

KumoScale software version 3.20 also includes CSI raw block support and an embedded Grafana storage analytics dashboard.

Please visit [KumoScale Software | KIOXIA](#) to learn more. Customers interested in testing KumoScale software v3.20 are encouraged to contact us using the [inquiry form](#).

About KumoScale Storage System

[KumoScale](#) storage system software is a leading high-performance block storage software suite for on-premises clouds. Combining the speed and responsiveness of born-in-the-cloud software with the staying power of one of the world's largest flash memory makers, the KumoScale storage system software uses NVMe technology to enable flash as a service in software-defined storage (SDS) environments for Kubernetes, OpenStack and bare metal infrastructures.

Notes:

Representations that KumoScale supports OpenID Connect 1.0 are made by KIOXIA America and not by the OpenID Foundation.

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About KIOXIA Europe GmbH

KIOXIA Europe GmbH (formerly Toshiba Memory Europe GmbH) is the European-based subsidiary of KIOXIA Corporation, a leading worldwide supplier of flash memory and solid-state drives (SSDs). From the invention of flash memory to today's breakthrough BiCS FLASH, KIOXIA continues to pioneer cutting-edge memory solutions and services that enrich people's lives and expand society's horizons. The company's innovative 3D flash memory technology, BiCS FLASH, is shaping the future of storage in high-density applications, including advanced smartphones, PCs, SSDs, automotive and data centers.

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