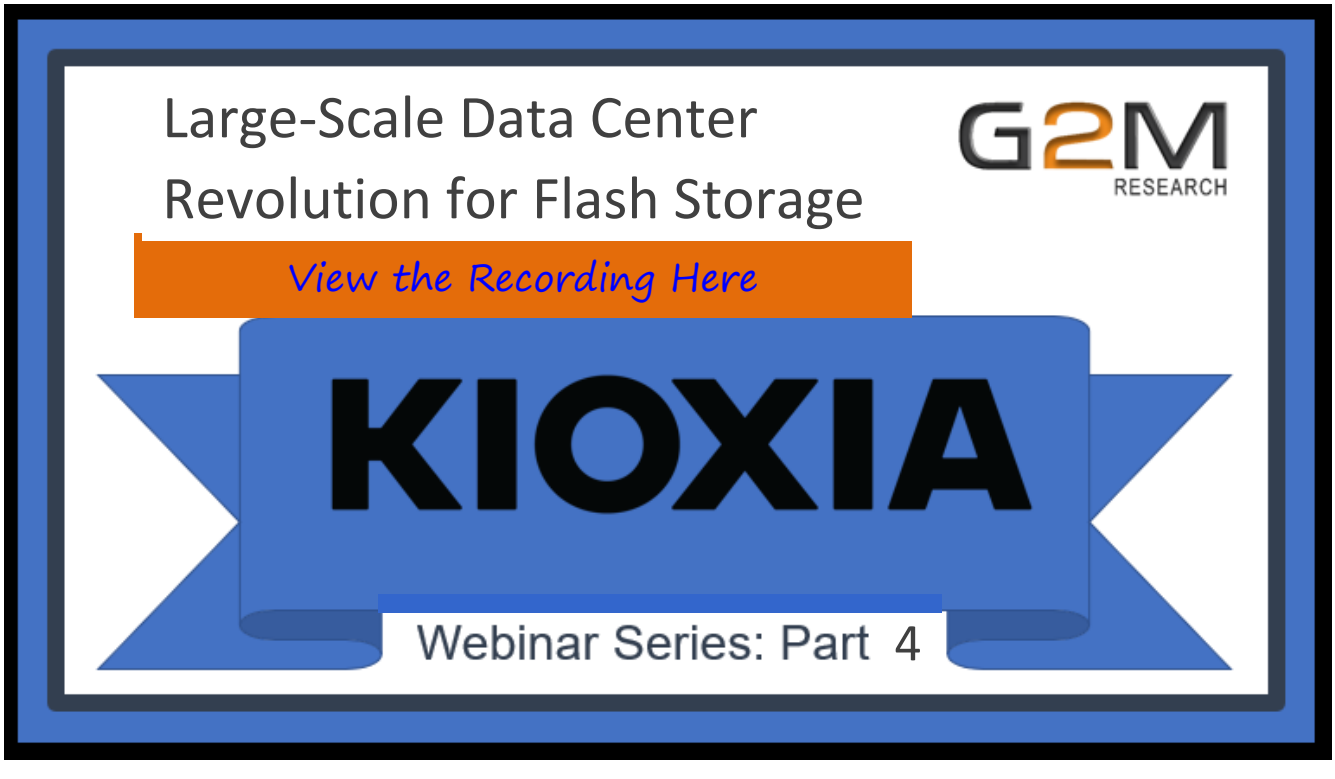
Highlights



"The digital media landscape is expanding as consumers adopt new technologies like connected TVs, connected vehicles and other "smart" technologies. All of these create new pathways to reach and engage consumers in more contextual and intelligent ways. There's no way to do this without analyzing massive complex datasets in near real-time. The ability to create more targeted segments, find more impactful moments, and personalize branded messages is facilitated by data analysis of trillions to quadrillions of records happening in seconds. At the same time, data privacy is of utmost importance and marketers must therefore be diligent to ensure the technologies they use to target, reach, and engage audiences will not only enable them to stay on top of an increasingly fragmented landscape of high- volume data, but to also do so in a privacy-safe way."

Chris Gladwin, Ocient CEO & Co-Founder, MarTechSeries Interview

AMD New Supercomputing GPU a Match Against NVIDIA & Intel?

AMD debuted a new supercomputing GPU accelerator that steps up the company's competitive game against rivals NVIDIA and Intel. Secure browser developer Island, meanwhile, makes the list for an impressive funding round. AMD this week launched the Instinct MI210, the company's new data center accelerator GPU, which is designed to handle demanding AI and high-performance computing workloads while utilizing a cost-saving PCI-Express interface. The introduction of the MI210 is seen as a shot across the bow for data center computing competitors Intel and NVIDIA, with the latter holding as much as 90 percent of the data center accelerator market last year. The new Instinct accelerators can be deployed alongside AMD's latest EPYC processors. The Lumi supercomputer at the Finland-based LUMI Leadership and Computing Facility, for example, is powered by AMD EPYC processors and Instinct MI200 accelerators. NVIDIA wasn't standing still this week, however. The chipmaker, at its virtual Nv GTC conference, unveiled a new accelerated computing platform named for pioneering computer scientist Grace Hopper. The new NVIDIA Hopper architecture is the foundation for the Nvidia H100 GPU that was also introduced at GTC.

Ukrainian Conflict Will Cripple Russian Companies & Hinder Chip Production

The Russian invasion of Ukraine has been met with an unprecedented global backlash. Global companies are curtailing or ending investment in Russia, and many companies are selling off their Russian operations. Many Western countries are outright banning the export of technology to Russia. China and India are being pressured to stop or curtail doing business with Russia by western countries as well.

Russia is not a major importer of semiconductors, and most of the semiconductors that it imports are low grade chips used for functions such as manufacturing. That being said, the only major companies that can supply Russia with chips at this point are in China: SMIC, AMEC, and Silergy. Additionally, it's unclear how Russia will be able to obtain NAND flash memory with major suppliers not exporting to Russia. The shortage of semiconductors and flash memory in Russia will have a large impact on Russian companies by hampering their ability to modernize and replace their IT equipment, and may lead to higher usage of older technologies (such as HDD storage and older chip designs). Additionally, with much of the cloud infrastructure located either in the US or western countries, Russian companies that were reliant on cloud-based storage solutions must grapple with a transition to hardware based storage. It is possible that Russian companies will secure technology through trade backchannels with China, since Russia shares a land border with them.

But what does this mean for western technology companies? Higher prices for components, and chip shortages. As mentioned earlier, Russia is not a major consumer of semiconductors or NAND memory, representing less than 1% of the global market. However, both Ukraine and Russia are large producers of neon, a key gas that is used during the semiconductor lithography process. Ukrainian manufacturing of neon has been extinguished by the destruction of manufacturing facilities in key cities like Mariupol. Ukraine produces 50% of the global neon supply and the US depends on Ukraine for 90% of it's neon. As companies stockpiles of the gas dwindle, they will be forced to turn to alternative sources of neon, or the possible use of substitute gasses. Additionally, rising energy costs associated with the war will also increase the production cost of these components. It is likely that the Ukrainian war will lead to chip shortages and more expensive components in 2022 and possibly 2023.

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

KIOXIA America, Inc. has released version 3.20 of its KumoScaleTM storage software built around the NVM ExpressTM over Fabrics (NVMe-oFTM) protocol. Designed for cloud-centric deployment at data center scale, the KumoScale storage platform delivers high performance NVM Express (NVMeTM) 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.

> "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.

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.

NetApp Announces Intent to Acquire Instaclustr

NetApp announced that it has signed a definitive agreement to acquire Instaclustr, a leading platform provider of fully managed open-source database, pipeline and workflow applications delivered as a service. The acquisition is subject to customary closing conditions. NetApp says this acquisition will bring management, monitoring and optimization for storage, compute and data together with fully managed application services to provide customers a platform for cloud applications from the datacenter to the public cloud.

Modern cloud applications rely on a growing set of foundational services including multiple open-source databases, data pipelines, and workflow solutions. Efficiently managing the growing complexity and operational requirements of these applications and services adds new challenges for already overstretched infrastructure, database and operations teams, increasing application integration and delivery costs, slowing application delivery and limiting application innovation.

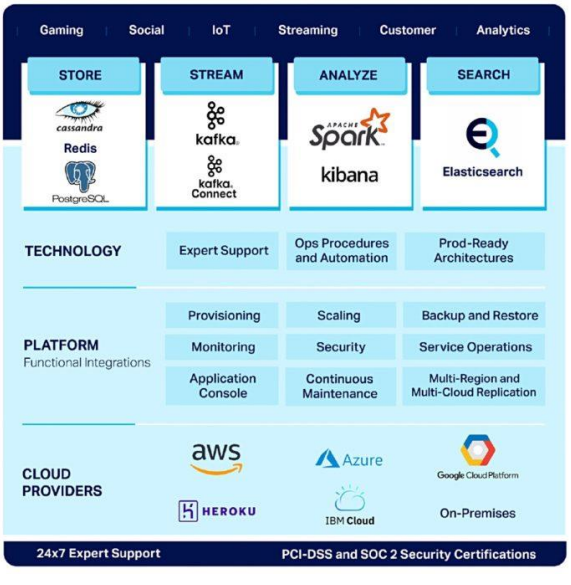
“NetApp has long been a leader in solutions enabling customers to run applications,” said George Kurian, CEO at NetApp. “The acquisition of Instaclustr will combine NetApp’s established leadership in continuous storage and compute optimization with Instaclustr’s fully-managed database and data pipeline services to give customers a Cloud Operations platform that provides the best and most optimized foundation for their applications in the public clouds and on premises.”

The acquisition of Instaclustr builds on a series of strategic acquisitions made by NetApp to deliver a leading best-of-suite platform for CloudOps. NetApp's acquisitions including Spot, CloudCheckr, Data Mechanics, Fylamynt and now Instaclustr have made Spot by NetApp a compelling platform for applications on one cloud and across multiple clouds--continuous optimization, automation, monitoring, and security combined with expertise deploying and operating open-source applications, all delivered as a service, on public and private clouds to give customers more cloud with less cost and less time.

"Data management technology platforms are an increasingly essential priority for today's modern enterprise as companies look for new ways to accelerate application development for competitive advantage. Instaclustr delivers fully managed open-source solutions that give companies increased productivity and reduced cost," said Peter Lilley, CEO and Co-founder at Instaclustr. "Instaclustr's growth has been driven by the fact that companies want to leverage open-source databases, pipelines, and workflow applications without overwhelming themselves with the complexity and cost of managing and operating them. We are excited for organizations building applications for their multi-cloud and hybrid cloud reality to benefit directly from Instaclustr's data PaaS solutions along with NetApp and Spot by NetApp's infrastructure solutions, while minimizing operations burdens."

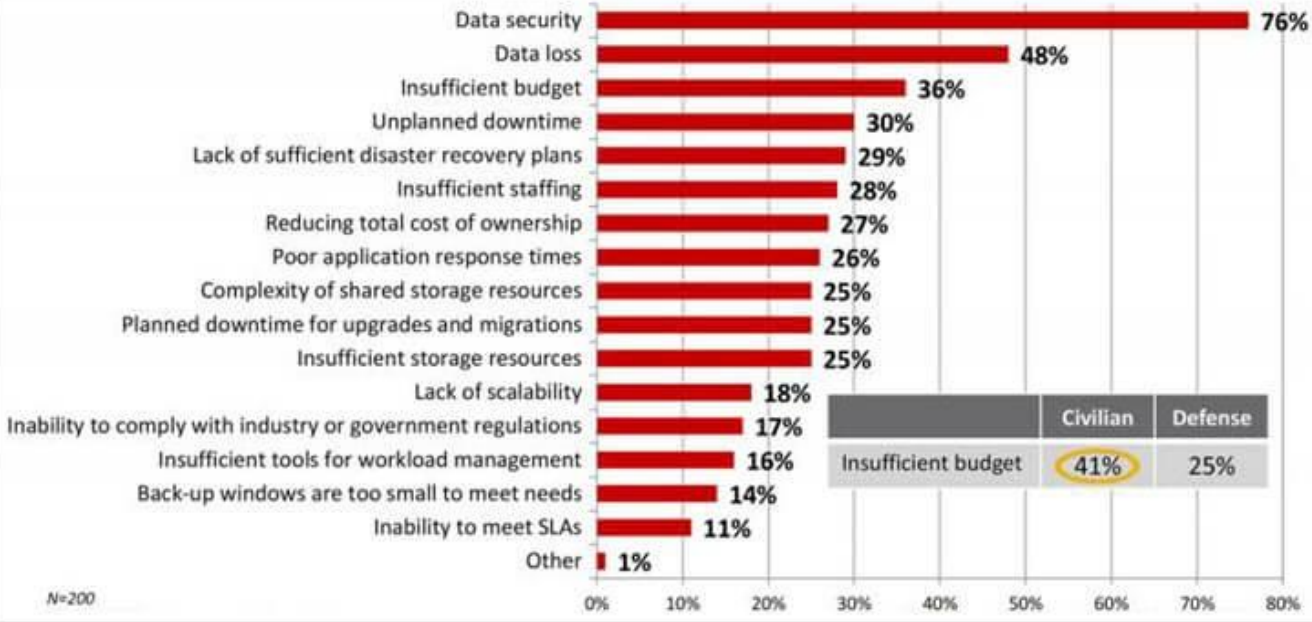
"As companies race to modernize and digitally transform in the cloud, they must implement solutions that enable them to focus more on building and releasing cutting-edge applications at speed, spending less on infrastructure management and operations," said Anthony Lye, Executive Vice President and General Manager, Public Cloud Services at NetApp. "Instaclustr does just that and will be a significant addition to our Spot by NetApp portfolio, solving common challenges of cloud complexity, cost overruns, single vendor lock-in, and customers' lack of internal technical resources. The acquisition marks a critical advancement in our strategy to run application driven platforms and infrastructures."

"From a technology and product perspective, NetApp's powerful infrastructure solutions pair perfectly with Instaclustr's data-layer-as-a-service solutions and services," said Ben Bromhead, CTO and Co-founder at Instaclustr. "For enterprise customers operating applications in the public cloud or on-prem, NetApp and Instaclustr's combined platform will offer an unparalleled solution for overcoming cloud complexities while eliminating vendor lock-in risks and the high costs of building and maintaining that same expertise internally."



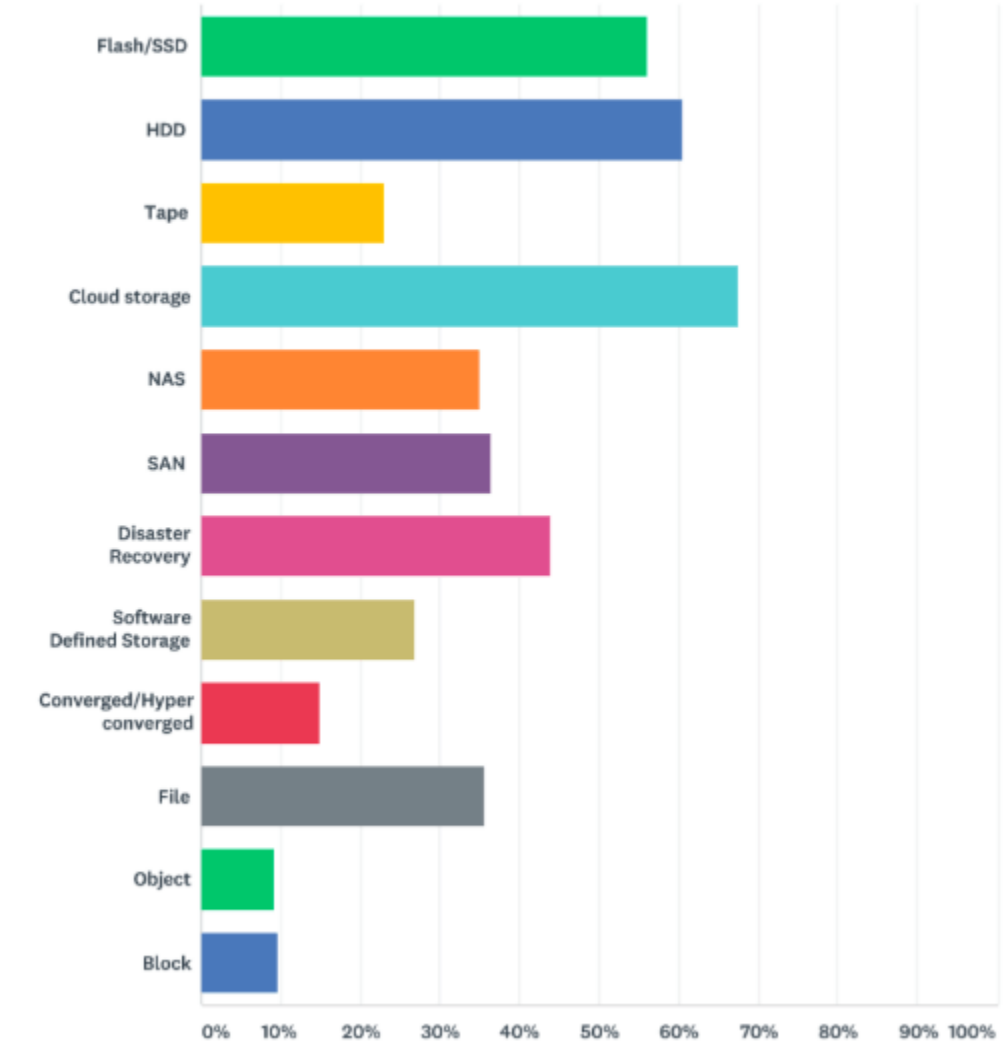
Data Storage Top Concerns

Data security is agencies' most widely mentioned concern when it comes to data storage and workload management, well ahead of a second tier of concerns that include data loss, insufficient budget (of significantly greater concern among civilian agencies), and unplanned downtime.



Storage Technologies

What storage technologies are included in your company's current storage infrastructure?

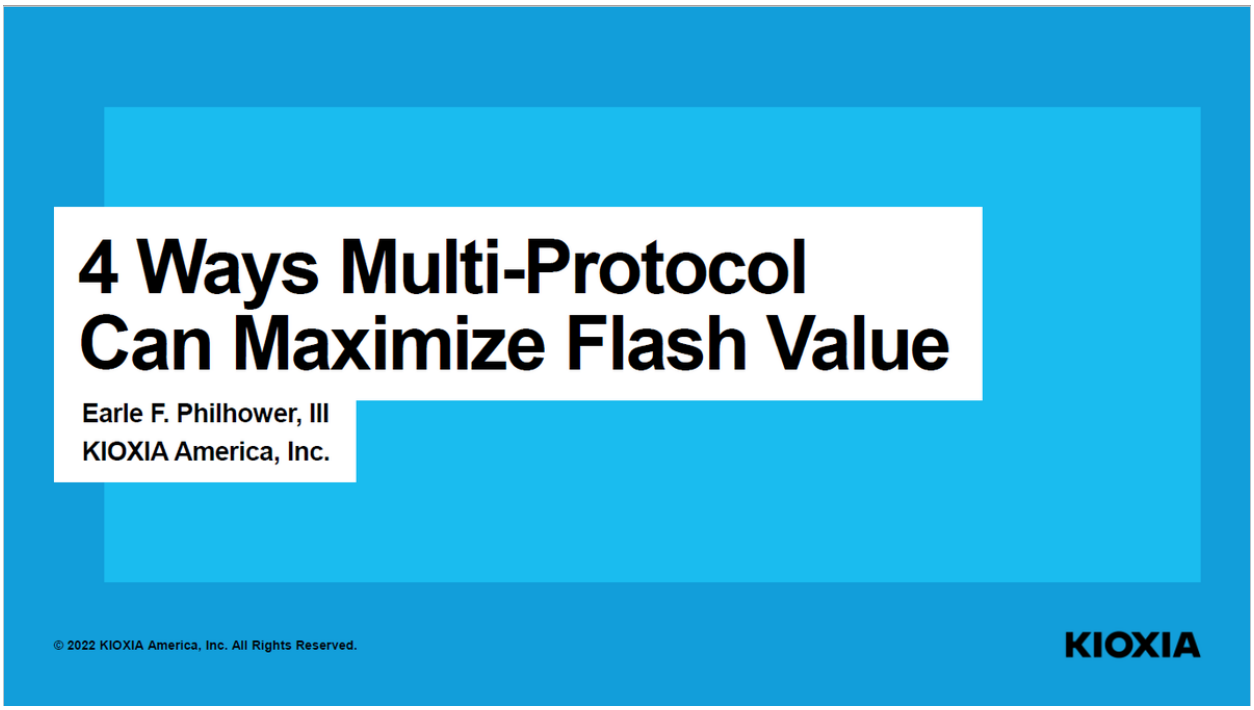


KIOXIA Webinar Series

Wednesday, March 30, KIOXIA presented “Large-Scale Data Center Revolution for Flash Storage.” Large-scale data centers present unique challenges for the optimal use of flash storage. Problems such as "noisy neighbors", data placement, and the widely varying latency requirements of different classes of applications are incredibly difficult to solve simultaneously with conventional flash architectures. Software-enabled flash (SEF) provides a means to effectively address the challenges of cloud data center. Find out how KIOXIA is approaching these issues with its market-leading approach to SEF by viewing the webinar here and the slidedeck is available here.

Tuesday, February 8, KIOXIA provided an analysis of “4 Ways Multi-Protocol Can Maximize Flash Value.” The webinar video is available to view here and the slidedeck is available here.
Each webinar stands alone and collectively provides an overview of the innovation, direction, and leadership KIOXIA provides in this enterprise storage space.

November 17, KIOXIA presented the second webinar in their four-part webinar series, “The Next Flash Revolution at Scale: Open Source Software + Software-Enabled Technology.” The video is available to view and a copy of the slidedeck is available here. KIOXIA webinar Part 1, “Why Flash Memory At Scale Should be Software-Defined” is available to view here along a copy of the slidedeck here.



Upcoming Conferences

April 19-21	ODSC East, Boston
April 23-27	NAB, Vegas
April 26-28	Smart NICs Summit, San Jose
May 4-5	World Summit AI Americas, Montreal
May 9-11	Gartner Data & Analytics Summit, London
May 10-13	Black Hat Asia, Singapore
May 11-12	AI & Big Data Expo, Santa Clara
May 11-12	Cyber Security & Cloud Congress, Santa Clara
May 18-19	Gartner Digital Workplace Summit, London
June 6-9	RSA Conference, San Francisco & Virtual
June 7-10	Women in Tech Global Conference 2022, TBA & Virtual
June 12-16	Cisco Live, Vegas
June 14-16	Digital Enterprise Show, Malaga
June 15	Cloud Security Summit, Virtual
June 21-22	Gartner Security & Risk Management Summit, Sydney
June 21-22	Gartner Digital Workplace Summit, San Diego
June 29- July1	Mobile World Congress, Shanghai
July 19-20	Cyber Solutions Summit & Expo, Virtual

August 2-4	Flash Memory Summit, Santa Clara
August 6-11	Black Hat USA, Vegas
August 11-14	DEF CON 30, Vegas
September 13-14	CISO Forum, Virtual
September 19-20	Industry of Things World, Berlin
September 28-29	IoT World, Santa Clara
October 5-6	Evolve, Vegas
October 24-27	ICS Cybersecurity Conference, Hybrid/Virtual
November 16	San Diego Cybersecurity Conference, Hybrid
November 16	Threat Hunting Summit, Virtual
November 18-19	Data Strategy & Insights (Forrester Research), Virtual
December 1-2	AI & Big Data Expo Global, London
December 6	Security Operations Summit, Virtual