



More COVID-19 Tradeshow Cancellations/Virtualizations!

The first article in our March Enterprise Storage Newsletter covered all of the tradeshow cancellations or “virtualizations” that had been announced through the end of May 2020. Unsurprisingly, the next 30 days resulted in still more cancellations or virtualizations. At this point, few shows are still scheduled for the summer. Recent cancellations, now virtual options include:

- [Citrix Synergy](#), Orlando FL, May 19-21 → now rescheduled for a virtual event in Fall 2020
- [International Supercomputer](#), Frankfurt Germany, June 21-25 → now a virtual event (June 22-24)
- [HPE Discover](#), Las Vegas NV, June 23-25 → now a virtual event (starting June 22)
- [VMworld US](#), San Francisco CA, Aug 30–Sept 3 → now a virtual event (same dates)
- [Microsoft Ignite](#), New Orleans LA, September 21-25 → now a virtual event (same dates)

The [Flash Memory Summit 2020](#) (August 4-6), [Black Hat 2020](#) (August 1-6), and [Interop](#) (September 21-24) are all still scheduled as live events, and shows for October and beyond have not changed their status yet, but all of these could change as the COVID-19 situation evolves. Keep looking here, and we will provide you with updates. G2M Research is also well-equipped to help companies and other organizations create virtual events to feature your speakers, products, and/or competitive strengths. Also, please join our scheduled G2M Research webinars, either as a sponsor or an attendee! You can find our contact information below in the “Webinar” section of the newsletter. We are here to help you reach your audiences!

Interview with Josh Goldenhar, VP of Product Marketing, Lightbits Labs

This month's interview was with Josh Goldenhar, Vice-President of Product Marketing at Lightbits Labs (you can hear the interview in its entirety [here](#)). Lightbits is well-known as one of the "champions" of NVMe™ over TCP (NVMe™/TCP)- Lightbits helped draft the specifications and they developed one of the first software drivers. However, Lightbits Labs real focus is on Scale-Out Flash Storage (SOFS) software.



- 1. Josh, when I first heard of Lightbits Labs, it was about your NVMe over TCP driver. Now you seem focused on what we call "scale-out flash storage", or SOFS, software solutions. Is this a pivot for Lightbits, or was this your planned approach from the beginning?*

→ We certainly became known as the "NVMe over TCP" company, but scale-out was always the plan. Our founders have backgrounds in flash storage controllers and storage networking, so we have a lot of expertise in storage and scale-out architectures. Our focus on NVMe/TCP was to make adoption of our technology "frictionless" by universalizing our solution.
- 2. Your website talks about "cloud-scale data centers", and the value of bringing hyperscale storage architecture advantages to "normal" datacenter operators. What do you see as the major benefits of hyperscale storage architectures for normal datacenters?*

→ There are three things that enterprise datacenters can get with our solution: efficiencies, lower costs, and higher performance. We allow enterprise datacenters to normalize their server configurations and move from proprietary storage solutions to standard server-based hardware solutions. From a performance standpoint, we can provide 10X-20X more than storage arrays. Lower cost and higher performance – It's like having your cake and eating it too!
- 3. If you could talk to companies who were deciding between putting their data on a cloud service provider's storage or keeping their existing datacenter and utilizing your software solution, what would you tell them are the reasons to choose Lightbits?*

→ There is a place for public clouds, private clouds, and hybrid clouds – it really depends on the characteristics and the logistics of the data. In some cases, there is too much data to move to the cloud, or the latency of moving the data to the cloud and processing it can be too great. There is also the issue of cost – there are low-latency cloud solutions, but they are very expensive. Data privacy and locality issues can also be a driver to utilize private clouds over public clouds.
- 4. Lightbits Labs is almost synonymous with NVMe over TCP. Do you think you miss any significant parts of the market by not supporting other NVMe over Fabric protocols, or do you see NVMe over TCP eventually becoming the dominant NVMe over Fabric protocol?*

→ The real question is what "significant" means. There are definitely some applications in FinTech and HPC that need extremely low latency. There are also legacy applications that utilize legacy transports like Fibre Channel. However, we think that these use cases constitute around 5% of the market, so we

don't think we are missing significant parts of the market. Additionally, Intel has come up with a new architecture called [Application Delivery Queues \(ADQ\)](#) that significantly reduces TCP latency, and may open up a good part of that 5% to TCP.

5. *What impact has COVID-19 had on Lightbits Labs business?*

→ We expected some of the impacts, such as the cancellation of tradeshow and marketing becoming virtual. Other impacts were less expected - installations and configuring IT equipment, for instance. Even in colocation facilities, time has to now be scheduled, and the windows are pretty constrained.

6. *What are the biggest challenges for Lightbits Labs as you scale your company in the future?*

→ The biggest challenge is adoption of NVMe/TCP, which we think will happen in next year or so. The latest Linux distributions already include NVMe/TCP – it just takes time for enterprises to switch over.



Our upcoming newsletters will continue to feature interviews with other players in our industry.

Hard Disk Drive Sales Continue to Plummet as Layoffs Hit the Data Storage Industry

Unsurprisingly, the sale of hard disk drives (HDDs) continue to drop. The latest forecast from [TrendFocus](#) for CQ1 2020 of 66.5M-68.1M units, a drop of 13.1% to 15.2% quarter-to-quarter, and a drop of 12.2% to 14.3% year-to-year. All three of the major vendors (Seagate, Toshiba, and WDC) saw drops in shipments, with WDC seeing the largest Q-Q drop, and Toshiba seeing the largest Y-Y drop. The strongest segment was for nearline HDDs, often used for cold and warm storage. In all cases, the COVID-19 outbreak has impacted both sales and production of HDDs.



HDDs were not the only part of the data storage industry that has been impacted by COVID-19. Over the past month, layoffs happened at [Pure Storage](#) (reported to be about 3% of their 3,350 staffers), [Cisco](#) (395 jobs), [Hitachi Vantara](#) (151 jobs), [Google Cloud](#) (no numbers reported), and [Intel's Data Platform Group](#) (no numbers reported). Overall, the State of California has seen [2.7 million new unemployment claims](#) over the last four weeks. While these layoffs are likely dominated by restaurants, hotels, and tourism-based businesses, tech will likely also have its fair share of layoffs.

VAST Data Raises \$100M in Series C Round

2018 and 2019 were record years for the venture capital (VC) industry as far as funding rounds go. Then COVID-19 happened, and now VCs are bracing portfolio losses and making less new investments, as they save their capital for existing portfolio companies. A good example of



this is SoftBank's recent announcement that they expect a \$16.7 billion loss in its Vision Fund portfolio companies for this fiscal year.

However, one company that seemingly hasn't been affected is [VAST Data](#). The company, which is focused on all-flash arrays, recently announced a Series C funding round of \$100M, valuing the company at \$1.2 billion. With an average selling price (ASP) of more than \$1M, VAST's products are not cheap – they are utilized mostly by large enterprises for file and object workloads, and typically compete against Dell/EMC and NetApp filers. VAST intends to use the money to grow their sales teams and their R&D workforce, especially as they build their next-generation product line which they expect to launch in the 2022 or 2023 timeframe.

The G2M Research 2020 Webinar Schedule is here!

Interested in attending our webinars? Register by clicking on the dates of interest. Looking forward to you joining us! Interested in Sponsoring a webinar? Contact [G2M](#) for a prospectus.

- [April 28](#): Will Storage Systems and Storage Networks Keep Pace with NVMe-oF™?
- [May 19](#): Utilizing HPC-Scale Storage and AI for Business Intelligence
- [June 23](#): Storage Security: Using AI to Stop the Bad Guys' AI
- [July 21](#): AV, Self-Driving Cars, and Advanced Storage
- [August 18](#): Creating Multi-Cloud and Hybrid Cloud Storage Solutions
- [September 15](#): Edge Computing/Storage – Get (and Keep) Your Data Off Of My Cloud
- [October 20](#): AI and Storage Use Cases in Healthcare
- [November 17](#): NVMe-oF™ - Using Telemetry to Improve Network Latency



Upcoming 2020 LIVE Storage Events

Dell Technologies World (May 4-7; Las Vegas, NV) – NOW AN ONLINE SHOW (SAME DATES)

Dell will hold a virtual Dell Technologies world, promising to have the same keynote speakers and sessions in a digital environment on the same dates as the physical show was scheduled.

HPE Discover (June 23-25; Las Vegas, NV) – NOW AN ONLINE SHOW (June 22-25)

Hewlett Packard Enterprise Discover 2020 will transition from an in-person event to a virtual experience, with a host of live and on-demand content to help you and your organization.



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Enterprise Storage Newsfeed

[Enterprise opens more storage options with two-way shipping on Seaway Pipeline](#)

Houston pipeline operator Enterprise Products Partners will begin to offer two-way shipping along a crude oil pipeline ...

[Houston Chronicle](#)54m

[Scality's New NAS Archiver Simplifies Path to Enterprise Storage Efficiency](#)

Scality, leader in software solutions for global data orchestration and distributed file and object storage, today announced ...

[PR Newswire](#)2d

[Oil storage tanks fill up as gasoline demand drops by nearly a third](#)

Commercial crude oil tanks in the U.S. are nearing capacity after months of high production and collapsing demand.

[Houston Chronicle](#)22h

[Enterprise Pipeline Offers Oil Route To Cushing Storage As Glut Grows](#)

Enterprise Products Partners is opening the northbound capacity of its Seaway pipeline, offering U.S. oil producers ...

[Crude Oil Prices](#)21h

[Clumio Achieves AWS Storage Competency Status](#)

Clumio, innovators of authentic SaaS for enterprise backup, today announced that it has achieved Amazon Web Services (AWS) Storage Competency status for its enterprise backup solutions. This designati ...

[YAHOO!](#)19h

[Marvell Enables NVMe over Fabrics Storage Disaggregation for VMware Virtualized Data Centers](#)

The integration of Marvell's Fibre Channel and Ethernet adapters into vSphere 7.0 allows low-latency, high-performance NVMe ...

[PR Newswire](#)5h

[Machine Learning And The Breakthrough In Enterprise Data Management](#)

Machine learning has already helped us get to where we can manage 10 times as much data, with one-tenth the people and in one ...

[Forbes](#)1d

[First HP Enterprise, Now Cisco Systems -- Can Delayed Payment Plans Keep the IT Industry Going?](#)

HP Enterprise (NYSE:HPE) led the way with a slightly different \$2 billion program last ... I'm looking at you, Cisco rival ...

[The Motley Fool](#)1d

[TCO Report: Cloud Storage vs. On Premises Storage](#)

In this paper, we compare the economics of on-premises object storage with public cloud for enterprise storage. With demands on enterprise storage higher today than ever before, we first will compare ...

[Virtualization Review](#)1h

[Storage Area Network \(SAN\) Solutions Market Surpass \\$24.4 Billion By 2026 | CAGR 4.5%](#)

The global Storage Area Network (SAN) Solutions Market is expected to exceed \$24.4 billion by 2026 and the market is anticipated to display a compound annual growth rate (CAGR) of 4.5 percent from ...

[MarketWatch](#)1d

[VAST Data lands \\$100M Series C on \\$1.2B valuation to turn storage on its head](#)

VAST Data, a startup that has come up with a cost-effective way to deliver flash storage, announced a \$100 million Series C ...

[TechCrunch](#)5h

[Network-Attached Storage \(NAS\) Market Size Rising at 26.6% CAGR During 2020-2025: Analysis of Key Players, Trends and Drivers](#)

Growth forecast report " Network-Attached Storage (NAS) Market size by Product Type (Scale-up Type and Scale-out Type), ...

[MarketWatch](#)15h

[Object Storage: Why Organizations Are Making the Switch](#)

In addition to flexibility, object storage tends to be particularly available and durable. "We're used to talking about ...

[Data Center Knowledge](#)2d

[Commvault Earns CRN® 5-Star Partner Rating and Recognition on Storage 100 List](#)

Commvault (NASDAQ: CVLT), a recognized global enterprise software leader in the management of data across cloud and ...

[PR Newswire](#)5h

[Multicloud storage 101: Pros, cons, pitfalls and strategies](#)

things will get messy quickly as individual decision-makers will choose cloud storage based on their own preferences rather ...

[Computer Weekly](#)8d

[Enterprise NAS HDD Market Size & Growth overview 2020-Driving Factors, Distributors, End-Use Sector, By Region, By Country & Forecast to 2026](#)

Enterprise NAS HDD Market"2020 Industry Research Report could also be knowledgeable and in-depth research on this state ...

[MarketWatch](#)7h

[Storage Area Network \(SAN\) Solutions Market New Innovations Trends, Research, Global Share and Growth Factor till 2026](#)

The global Storage Area Network (SAN) Solutions Market size is projected to reach US\$ 24.4 Billion by 2026 with a CAGR of 4.5% throughout the forecast period 2019 to 2026, In accordance with the study ...

[MarketWatch](#)3d

[Russian Ministry Adds Waves Enterprise Blockchain Platform to Official Registry](#)

Documents published by the Russian Ministry of Communications on April 7 reveal that Waves Enterprise was added to the list ...

[CoinTelegraph](#)1d

[Back To The Future: Coronavirus Pulls Enterprise Solution Provider Back To PC, End User Tech](#)

Social distancing has pushed Integrated Archive Systems, for years a leading enterprise storage and cloud solutions provider, ...

[CRN](#)7d

[Micron Technology Announces New Micron 5210 ION Enterprise SATA SSD Capacity and Features](#)

As workloads evolve to meet growing demands for real-time data insights and analytics, data centers increasingly need the ...

[HPCwire](#)8d

[Connected Enterprise Market Evaluation of Industry Trends, Growth Drivers and Forecast To 2025](#)

Connected Enterprise Market:Snapshot The connected enterprise market has become a key part of the corporate sector following ...

[MarketWatch](#)2d

[Eight Storage Requirements for AI and Deep Learning](#)

Vast quantities of training data enhance accuracy in the search for potentially predictive relationships. This paper delivers eight specific storage requirements of AI and DL applications and why they ...

[Virtualization Review](#)1h

[AMD launches new series of Epyc processors for the enterprise](#)

AMD, he said, is focused on a few key enterprise objectives. That includes helping enterprises gather intelligence from their ...

[ZDNet](#)2d

[Are your remote workers storing enterprise data in the right place?](#)

Document version management, security and encryption, and the ability to create and manage an audit trail are just a few data features that could be jeopardised by incorrect storage practices. A ...

[IT Pro Portal](#)1d

[Video Surveillance Storage Market Share, Size, Trends, Industry Growth and Forecast 2025](#)

The detailed study on Video Surveillance Storage market offers a broad and thorough data based on systematic analysis ...

[MarketWatch](#)9h

[CRN® Recognizes HYCU® on 2020 Storage 100 List](#)

HYCU®, Inc., a pioneering enterprise software company specializing in data backup, recovery and monitoring for next-generation Enterprise Clouds, announced today that CRN®, a brand of The Channel ...

[YAHOO!](#)2d

[Enterprise to offer dual direction service on Seaway pipeline](#)

(NYSE:EPD) says it will give oil companies searching for places to store crude the chance to ship barrels on its Seaway pipeline from the Gulf Coast to Cushing, Okla. Enter ...

[Seeking Alpha](#)21h

[Global Software-Defined Storage Market: Demand, Upcoming Trends and Business Opportunity 2020 to 2025](#)

Defined Storage Software market was valued at USD 9.4 billion in 2019 and is expected to reach USD 37.24 billion by 2025, at a CAGR of 25.8% over the forecast period 2020 - 2025. Software-defined ...

[MarketWatch](#)10d

[Data storage company Cohesity raises \\$250 million at a \\$2.5 billion valuation](#)

Enterprise data storage startup Cohesity has raised \$250 million in a series E round of funding. This takes Cohesity's total ...

[VentureBeat](#)7d

[SoftNAS Changes Name to Buurst, Announces Plan to Disrupt the Storage Industry](#)

SEATTLE--(BUSINESS WIRE)--SoftNAS, a leading enterprise-class data performance company, today announced significant changes ...

[Business Wire](#)2d

[Scality Software-Defined Storage: Product Overview and Insight](#)

Recognizing that the value of the enterprise now centers on its data, the core essence of the company is to bring freedom and ...

[eWeek](#)6d

[Public Service Enterprise Group: Solid Utility With A Difficult Transition Ahead](#)

Public Service Enterprise Group lost a third of its value in March but has recovered much of its value since. The utility ...

[Seeking Alpha](#)3d

[How Lavelle Networks became India's No. 1 enterprise network solutions provider in under 5 years](#)

storage and computing were being disrupted by rapid tech advancements. "At the same time, India was increasingly becoming a ...

[Your Story](#)8d

[CORRECTING and REPLACING SoftNAS Changes Name to Buurst, Announces Plan to Disrupt the Storage Industry](#)

The corrected release reads: SOFTNAS CHANGES NAME TO BUURST, ANNOUNCES PLAN TO DISRUPT THE STORAGE INDUSTRY The cloud data ...

[Business Wire](#)2d

[Business Choice Awards 2020: Routers and Servers/Network Attached Storage \(NAS\)](#)

Readers' Choice Winner SOHO/SMB NAS Devices: Synology For seven years running, Synology has produced must-have storage device ...

[PC Magazine](#)5d

[Hedge Funds Are Buying Axon Enterprise, Inc. \(AAXN\)](#)

Coronavirus is probably the 1 concern in investors' minds right now. It should be. On February 27th we published an article ...

[YAHOO!](#)10d

[Enterprise offers crude shipments on existing pipeline from Gulf Coast to Cushing](#)

Enterprise products partners said it would offer spot shipments of crude on an existing pipeline from the U.S. Gulf coast to Cushing, Oklahoma, the delivery point for benchmark U.S. crude futures, as ...

[Reuters](#)2d

[Connected Enterprise Video Surveillance Solution Market Expected to Witness the Highest Growth 2025](#)

The Connected Enterprise Video Surveillance Solution Market research report provides a complete view of the market by assessing the impact of the technological advancements, changes in investment ...

[MarketWatch](#)8d

[SK Hynix Sampling New PCIe 4.0 96L SSDs, 128L 4D NAND Enterprise SSDs](#)

16TB Enterprise EDSFF E1.L SSD The PE8111 still retains as PCIe 3.0 interface and its corresponding performance ...

[AnandTech](#)8d

[Enterprise High Performance Computing Market Inventory Demand with Future Expansion by 2029 | Amazon and Bright Computing](#)

Market.us, Recently Published Report on "Enterprise High Performance Computing Market Moving Towards 2020 With ...

[MarketWatch](#)9d

[Uniqmac wins distie deal with storage vendor QSAN](#)

Founded in 2004, QSAN specialises in developing data storage systems for enterprise and small-to-medium-sized organisations. ...

[ARN](#)10d

[SK hynix's Low-Power NVMe PCIe Gen4 Enterprise SSDs: Available Now for Sampling](#)

SK hynix Inc. (or "the Company,") today announced the availability of the "PE8000" series, its newest and most advanced ...

[PR Newswire](#)9d

[Storage Server Market to Watch: Spotlight on Fujitsu, Dell, Huawei](#)

Advance Market Analytics released a new market study on Global Storage Server Market with 100+ market data Tables, Pie Chart, Graphs & Figures spread through Pages and easy to understand detailed ...

[MarketWatch](#)3d

[Huawei maintains steady growth in the enterprise market in 2019](#)

According to a Gartner's report released in September 2019, Huawei's storage products took up the Leaders' zone of the Magic ...

[Khaleej Times](#)4d

[Global Advanced Energy Storage Systems Market By Top Key Players- LG Chem. Ltd, GS Yuasa International Ltd and ABB Ltd](#)

Global Advanced Energy Storage Systems Market (Revenue and Volume), Type, Application, End-User, and Regional Analysis, Import-Export Analysis, Industry Analysis, Premium Insights, Intellectual ...

[MarketWatch](#)10d

[ProtonMail Is Giving Every Subscriber 5GB+ Additional Storage For Free](#)

ProtonMail has launched a number of initiatives to help remote workers and organizations during the COVID-19 pandemic.

[Forbes](#)8d

[VTEX Invests in US Market to Deliver Collaborative Commerce and Meet Growing Enterprise Customer Demand](#)

VTEX's enterprise-grade marketplace functionality supports retailers and B2B brands that ... Stanley Black & Decker has ...

[Business Wire](#)2d

[Backup as a service Market Cost Structure Forecast to 2029 | Microsoft Corporation, Hewlett Packard Enterprise Company, Dell Inc](#)

Global News For Backup as a service Market Study 2020-2029, by Segment (Online Backup, Cloud Backup), Playing a Pivotal Role in Expanding by (Email Backup, Application Backup, Media Storage Backup), ...

[MarketWatch](#)10d

[Digital Storage Devices Market Growth is Driven by Increasing Amount of Data from Digital Services](#)

Digital Storage Devices Market Research Report- Forecast till 2023 Market Highlights The Internet-based service ...

[MarketWatch](#)3d

[Police: 2 found dead in storage unit died of CO poisoning](#)

SCOTTSBUFF, Neb. (AP) — Two people found dead in February inside a parked car in a storage unit died of accidental carbon monoxide poisoning, authorities have reported. A news release from the Scotts ...