

GigaIO Further Defines Edge AI Computing Direction

TECH: Mushroom Networks Partnership Enables Higher Compute Capabilities

BY ELI WALSH - AUGUST 12, 2026

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AI computing technology company GigaIO has prioritized its edge computing business, which includes its suitcase-sized Gryf data center-class computing device and its half-rack-sized computing unit Manticore. Photo courtesy GigaIO

SAN DIEGO – GigaIO is living life on the edge.

The artificial intelligence computing technology company spun off and sold its data center business to Bay Area-based d-Matrix this spring to focus more on the edge computing portion of the business. GigaIO CEO Alan Benjamin argued the need for enhanced computing power outside of data center environments is only going to continue to increase.

“If you’re doing software coding, that’s going to live at the data center forever, probably.

But there’s a lot of use cases where AI needs to move out of the data center, and it fits in the spot between the data center and this,” Benjamin said, holding up his smart phone.

“You’re still going to be able to do more here,” he added, again holding the phone aloft, “but you have the fundamental power limitation here, and we see an enormous opportunity sitting right there in the middle.”

Last year, GigaIO launched Gryf, a carry-on suitcase-sized computing device that combines computational, GPU, storage and networking resources in one system and gives users the ability to portably leverage data center-level performance.

The company also developed a larger, non-mobile data center-class computing device, Manticore, that is designed to both collect data from devices like sensors, cameras and instruments and process it onsite – at the edge – rather than in the cloud.

Industries like defense, industrial production, manufacturing, automated agriculture, oil and gas and mining often generate far more data than they can process onsite. However, cloud computing requires the kind of stable and potentially costly network connection that operational environments in those industries may lack.

Growing Partnership with Mushroom Networks

In an effort to reduce or remove connectivity bottlenecks for edge environments, GigaIO announced a partnership in July with fellow San Diego networking technology company Mushroom Networks.

The two companies have been acquainted for some time and identified an opportunity to solve connectivity issues between the far edge – systems like robotics and smart municipal devices – and the near edge, which typically constitutes a single building like a manufacturing facility.

“Some of our customers, the amount of data they want to move from the far edge to what they would call the near edge has just grown astronomically,” Benjamin said. “So the obvious connection here is we’re giving people compute capability that they simply can’t get elsewhere.”

Network connectivity between these two environments often needs to be wireless, as data flow from the far edge to the near edge would be impractical via more stable wired connections. However, wireless connections may not provide the bandwidth needed to exchange significant amounts of sensor and video data.

Mushroom Networks specializes in aggregating multiple wireless and wired connection sources like Wi-Fi, private 5G, fiber and satellite into one high-bandwidth networking link.

“Combining Mushroom’s intelligent connectivity with GigaIO’s edge compute power gives manufacturing 4.0 and 5.0 environments a complete edge solution: process more data locally, and move it reliably when you need to,” Mushroom Networks CEO Jay Akin stated.

Controlling the 'Furnace'

Benjamin cited data from the research and advisory firm Gartner that companies process only around 10% of their data at the edge and never touch the remaining 90% and lack the local computing and data processing capacity to do so.

Enterprise-grade artificial intelligence inferencing can analyze some of that data, but most AI systems are essentially sophisticated pattern matching systems and may not provide the contextual information a manufacturing facility truly needs when, Benjamin offered as an example, its furnace runs too hot.

"All these companies, they want to move this data, they want to know 'why,' what actually occurred, but they don't need to do that in real time," he said. "What they do need in real time is, do I turn the furnace down or do I turn the furnace up?"

Benjamin said the two companies would have established a similar partnership sooner if GigaIO hadn't been partly focused on data center computing prior to the d-Matrix sale.

"If we're going to be successful – this is the collective 'we,' all of us – in really deploying some of these new technologies on the edge, we're going to do a better job of processing closer to the workload and we're going to be able to move this data for further processing," he said. "So it's a natural hookup between what Jay's doing and what we're doing."

Mushroom Networks

FOUNDED: 2004

CEO: Jay Akin

HEADQUARTERS: San Diego

BUSINESS: Telecommunications networking and connectivity

WEBSITE: mushroomnetworks.com

CONTACT: (858) 452-1031, ext 0

NOTABLE: Mushroom Networks was originally spun off from UC San Diego.

GigaIO

FOUNDED: 2012

CEO: Alan Benjamin

HEADQUARTERS: Carlsbad

BUSINESS: AI inferencing infrastructure

FUNDING: Roughly \$40 million

WEBSITE: gigaio.com

CONTACT: info@gigaio.com

NOTABLE: GigaIO was named to Rising Tide Partners' 2026 San Diego Hardtech 50, spotlighting 50 notable hardware companies in San Diego.

Eli Walsh

Eli is an award-winning reporter primarily covering the tech and life sciences industries. He previously worked as the San Diego City Hall reporter for the regional wire City News Service. He has also covered public health, transportation and state and local politics in the San Francisco Bay Area for Local News Matters, the nonprofit arm of the regional wire Bay City News Service, where he also oversaw the development and daily content management of the outlet's public health and COVID-19 news and resource webpage. He is also a contributing writer covering Minor League Baseball for the analysis and commentary website Baseball Prospectus. Eli is a graduate of San Francisco State University and a native of Northern California.

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