Bring the power of a supercomputer to the tactical edge

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SOURCECODE™

When you're in the field, your "edge" is different than other industries. It's more difficult to access real-time data at critical times.

Rugged environments require deployable technology that you can take on the road to accomplish mission-critical workloads, no matter the time or the location. Your success depends on a new generation of supercomputers that are as powerful as they are portable — so portable in fact that you can bring it with you wherever your mission takes you (on a helicopter, in a vehicle, or an airplane).

Gryf, co-designed by GigaIO and SourceCode, is a portable supercomputer for rapid AI processing of time-sensitive data in the field. It redefines portability by packing a powerful data center into a rugged suitcase form factor.

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Empower mission success at the edge

You need to access and analyze data anywhere and moving workloads to the edge can make all the difference in completing your mission. You can accelerate your insights with the power of a data center, even in the most remote locations.

Beyond speed, there are additional benefits to edge computing:

- Lower power consumption
- Reduced data transport costs
- More efficient resource usage

This way, you can improve your ROI on tech spend and improve your bottom line, even as you take advantage of real-time insights.

Conquer the far edge

Gryf brings the full power of a data center right to the source, enabling you to process and analyze information instantly, on-site.

To handle the deluge of data you encounter in the field, you'll require significant compute powers as well as massive storage to process the information in real-time. All of this packaged into a device that you can bring with you to remote locations.

Challenges include: :

- Transporting the technology
- Achieving sufficient performance
- Staying within budget
- Adapting to changing field conditions

Fortunately, there is technology that has been thoroughly tested and validated to overcome these challenges in the field. With purpose-built solutions, you can thrive in even the toughest environments.

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Meet Gryf: The first-ever suitcase-sized AI supercomputer

Gryf is a portable supercomputer for rapid AI processing of time-sensitive data in the field. It redefines portability by packing a powerful datacenter into a rugged suitcase form factor.

Gryf provides a real-time advantage over your competition, increases your chances of mission success, and reduces mission losses by bringing the power of a supercomputer to the tactical edge. It delivers the capabilities of a datacenter in a TSA-friendly suitcase-size form factor, handle and all.

Fully configurable on-demand through software or by interchanging sleds, Gryf allows for dynamic reconfiguration, resulting in:

- Higher resource utilization
- Reduced hardware costs
- Higher availability

Gryf is ideal for accessing real-time data in areas such as:

- Defense
- Aerospace
- Natural disaster response
- Sports analytics
- Sports entertainment

Gryf at a glance

The capabilities of a datacenter in a TSA-friendly suitcase-size form factor, handle and all

- Rugged, lightweight carbon fiber enclosure
- 2 x 2500W AC power sharing supply
- IEC-320-C20 receptacle
- 100-240V DC power optional
- Configurable resource sleds
- Optional 100GB Ethernet switch

Learn more about Gryf at SourceCode.com

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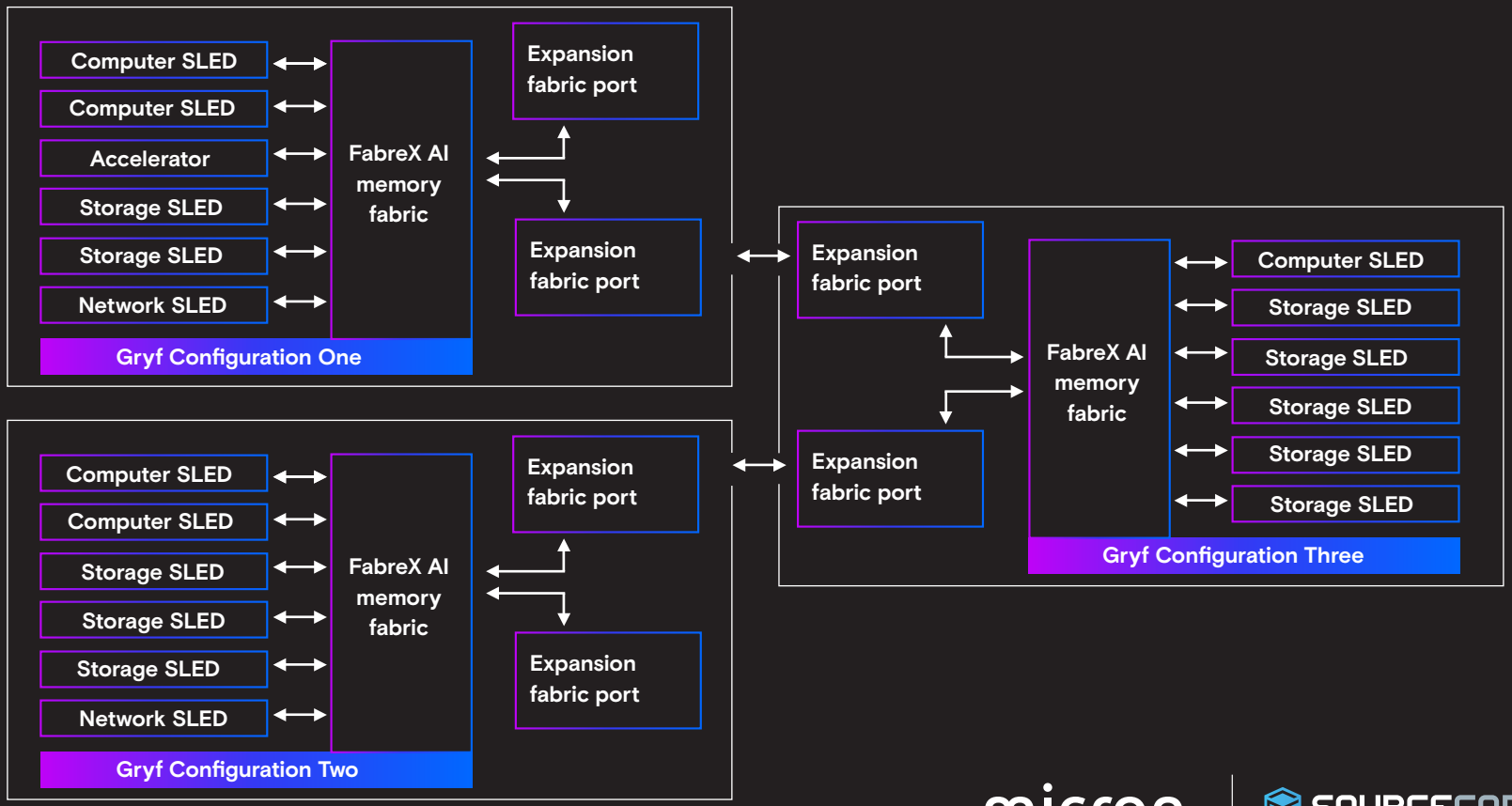
Achieve supercomputing capabilities with interconnected systems

Expand with ease

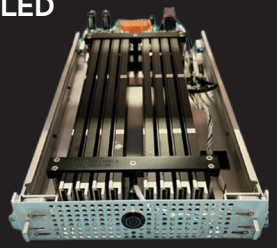
Connect up to five Gryf units (with 30 available slots for resources) using GigaIO's FabreX AI memory fabric to achieve supercomputer-class performance. FabreX dynamically disaggregates and re-aggregates GPUs and other system components to optimize hardware configurations for each workload. This setup allows each Gryf unit to share and access sled components across all five interconnected chassis in an all-to-all network configuration.



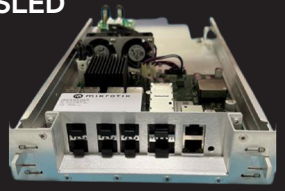
Current sleds

Compute SLED

Storage SLED



Network SLED



AI/GPU SLED

Technical specifications

Compute SLED	
CPU	(1) AMD EPYC 7003 family, 7313 64.core
DDR4	512GB 3200MHz
OS storage	512GB NVMe M.2 SSD
Network connections	(2) QSFP56 100GbE copper/optical
OS support	Linux, WIndows, KVM, VMware
BMC/IPMI	Via chassis RJ45
Storage sled	(8) 61 TB NVMe E1.L SSD (total 488 TB)
AI/GPU/Accelerator sled	(1) NVIDIA H100 94GB (or other accelerator cards under 400 W)
Network sled	Gigibit Ports: (2) 100 Gbe QSFP56 ports, (6) 25/10 GbE SFP28 ports
Platform	
AI memory fabric	Internal: PCIe 256 Gbps board-to-board; External 8x FabreX Mini-SAS-HD-32G 32Gbps for Gryf daisy-chaining or data offload at home-base
Management network	(5) RJ45-10Gbe/1GbE for FabreX Fabric Manager and out-of-band (OOB) baseboard management controller (BMC) / IPMI
Software	GigaIO FabreX Fabric memory Manager
Weight	based on configuration (~55lbs)
Dimensions	With wheels 9.00" x 14.00" x 24.50" (228.6mm x 355.6mm x 622.3mm) Without wheels 9.00" x 14.00" x 22.00" (228.6mm x 355.6mm x 558.8mm)
Operating temperature	10°C to 32°C (50°F to 90°F)
Power	(2) 2500WW AC power sharing supply, IEC-320-C20 receptacle, 100-240 VAC@50 to 60Hz
Enclosure	Carbon Fiber, handle and wheels
Fan or fanless	(6) 60mm fans with removable 45 PPL filters

Small supercomputer with massive storage capabilities

Micron 6000 series SSDs combine exceptional storage capacity with power efficiency, making them the ideal choice for Gryf and other edge environments. With up to 61.44 TB capacity and superior read/write speeds, the 6000 series provides rapid data processing and reliability, even in rugged and remote locations.

These SSDs are ideal for providing massive storage to Gryf devices since they can easily meet the demands of edge workloads such as: :

- AI and ML
- Data lakes
- High-performance computing (HPC)
- Real-time analytics

Micron® 6000-series SSDs at a glance

Micron® 6500 ION NVMe SSD

Purpose-built to handle huge datasets with ease

- 30.72 TB max capacity
- 6,800 MB/s sequential reads
- 5,000 MB/s sequential writes
- 1,000,000 IOPS random reads
- 200,000 IOPS random writes

Download full specs

Micron® 6550 ION NVMe SSD

Purpose-built to handle huge datasets with ease

- 61.44 TB max capacity
- 14,000 MB/s sequential reads
- 7,000 MB/s sequential writes
- 2,000,000 IOPS random reads
- 70,000 IOPS random writes

Download full specs

Secure mission success with Micron storage and Gryf

Combining Micron storage and Gryf allows you to push the boundaries of what's possible at the edge. The innovative portability of Gryf will take you where you need to go, and once you're there the massive storage of Micron's 6000-series SSDs can handle the data deluge to provide you actionable, timely insights.

Mission success starts at the edge, where you're as close to your data sources as possible. Leveraging Micron storage and Gryf, you benefit from:

- Real-time insights
- Lower power consumption
- Reduced data transport costs
- Higher resource utilization
- Reduced hardware costs
- Higher availability

Contact the experts at Micron and SourceCode to learn more about how you can overcome your unique challenges and succeed at the edge.

About Micron

Micron's experts work closely with customers at engineering sites across the country to streamline processes and reduce the load on your engineering teams.

We rigorously test server architecture for purpose-built solutions that keep GPUs running smoothly while reducing power consumption and improving overall efficiency.

Wherever you are in your cloud-to-edge journey, you're surrounded by potential insights. Micron can help you implement strategies so you can tap into those insights as quickly and efficiently as possible.

Learn more at micronpg.com/edgeAI

About SourceCode

Founded in 1992, SourceCode is a global provider of co-designed, custom, certified IT systems for next generation intelligent infrastructure. The company's edge devices, desktop, servers, storage, clusters, and reference architectures are available via its industry-leading ecommerce platform as well as its customer-centered engineering-led engagement model.

Learn more at SourceCode.com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