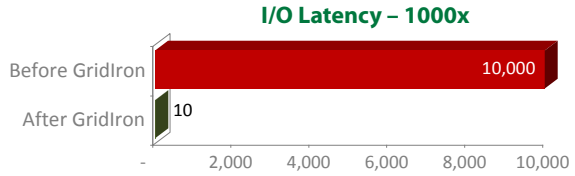
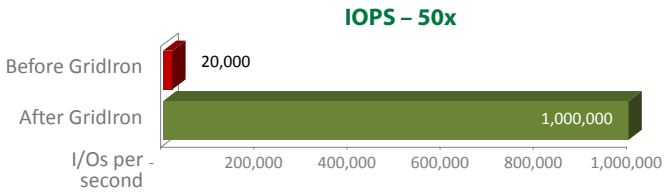
GridIron Systems TurboCharger™

Data Accelerator Appliance

Accelerate Application Performance Up To 10x

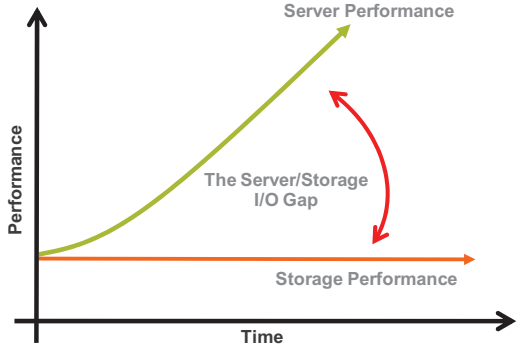
With GridIron TurboChargers, you turn your performance-challenged IT environment into the fastest data serving infrastructure on the planet!





CHALLENGE – Deteriorating Application Performance

Performance of revenue generating applications is critical to the financial success of your company.



While application servers have the necessary horsepower with multi-core processors and high-speed memory, the storage systems are based predominantly on mechanical spinning disks, creating a huge I/O performance gap between the server and storage that severely hampers application performance.

SOLUTION – Applications Scream With GridIron TurboCharger™

GridIron Systems' TurboCharger boosts application performance up to 10 times by providing RAM-like access speeds to application data sets.

The TurboCharger is a SAN-attached appliance deployed between the server and storage. It continuously profiles the data access behavior of applications and creates a heuristics-driven map of the data space. The I/O requests from applications are instantaneously fulfilled using this real-time data map thus boosting their performance.

The TurboCharger allows you to fully leverage your current storage, servers, databases, applications, processes and personnel resulting in massive cost savings, unlike alternatives that are expensive, power-hungry and often require forklift upgrades.

©2012 GridIron Systems Proprietary and Confidential

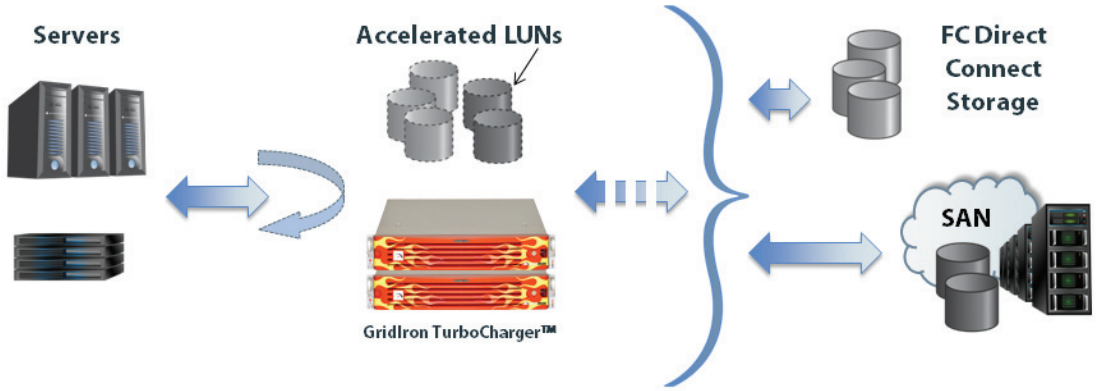
Seamless Acceleration of Your Applications!

Fast

- Run your business applications up to 10x faster
- Automatically improve the capacity and scalability of your applications
- Provide consistent I/O performance across diverse types of applications

Easy

- Deploy the TurboCharger in hours
- The TurboCharger works right out of the box and automatically profiles your environment
- Connect to a Storage Area Network (SAN) or directly to a server or storage array



Invisible

- Leave the current configuration of your applications untouched
- Utilize installed servers, databases and software thus avoiding costly upgrades
- Leverage your existing storage, data protection processes and personnel
- Accelerate any application that uses block-based storage. Data intensive applications using Oracle Databases, MS SQL, DB2, Sybase, and storage virtualization environments (e.g., IBM SVC) are prime candidates for acceleration using the GridIron TurboCharger.

Big

- GridIron scales from Terabytes to Petabytes of back end storage acceleration
- Increase boost capacity or I/O throughput by adding GridIron BoostPacks™ or more TurboChargers
- Cut costs by fully utilizing your storage capacity instead of short-stroking disks for performance

Safe

- The TurboCharger only accelerates read I/Os and "passes through" all write I/Os and status commands
- Coupled with your favorite storage array, the TurboCharger can also be deployed as a low-risk "out-of-band" mirror under your volume manager or ASM; this configuration ensures that your production systems are not impacted even if the TurboCharger were to go offline for any reason
- All the components and paths in the TurboCharger have built-in error-correcting code (ECC) circuitry to ensure the accuracy of data
- Granular control — choose to accelerate read I/Os from specific servers, storage, or LUNs only

©2012 GridIron Systems Proprietary and Confidential

GridIron TurboCharger™ GT-1500 Specifications

Connectivity

Fibre Channel	Six ports total - four server-side and two storage-side; auto sensing 2, 4, and 8 Gbit/sec ports; N_Port and NL_Port; Class 3 FC service
Management	Two 10/100/1000 Mbits/sec auto-sensing Ethernet ports (RJ-45) for management
Cluster Links	Two 10 Gbits/sec ports for proprietary high-availability cluster connections between TurboChargers
Console	Serial (RS-232) console port for management and troubleshooting
Media Types	FC ports: (Shipped with) Hot-pluggable, industry-standard Small Form-factor Pluggable (SFP), LC connector; short-Wavelength Laser (SWL) up to 500 meters (1640 feet) 10G cluster ports: Coaxial cables (supplied by GridIron)

Scalability

Back-end Storage Capacity	Up to 128 Terabytes of primary storage can be accelerated
Initiators & Targets	Please refer to the release notes for the latest information on the number of initiators and targets supported in a specific release
High Availability	High availability options available; please refer to the Deployment Configurations guide

Management

Interfaces	SSH, Web-based GUI, SNMP, serial console
Tools	POST, online/offline diagnostics, event log, Syslog events

Mechanicals

Form Factor	2U High, 19-inch EIA-Compliant
Air Flow	Front (non-cable side) to back (cable side)
Size	• Height: 3.5" (89mm) • Width: 17.5" (445mm) • Depth: 24.8" (630mm)
Weight	55 lbs (25 kg)

Operating Environment

Operating Temperature Range	10 - 35° C (50° - 95° F)
Non-Operating Temperature Range	-40 - 70° C (-40° - 158° F)
Humidity Range	8 - 90% non-condensing
Non-Operating Humidity Range	5 - 95% non-condensing
Heat Dissipation	1490 BTU per hour

Power & Cooling

Power Supply	Redundant; 430W, rated for 900W
AC Voltage	100—240 V, 60-50 Hz, 5-2.5 Amp
Fans	Three 80mm 6300 RPM PWM fans

Regulatory

Safety	• USA—UL listed • Canada—CUL listed • CE Mark
EMC	• FCC (Class A)

©2012 GridIron Systems Proprietary and Confidential

Rev: 11/12-1031

© 2012 GridIron Systems, Inc. All rights reserved. Specifications are subject to change without notice. GridIron, the GridIron Systems logo, OneAppliance, GridIron TurboCharger, BoostPack, FlashCube, iNode, RackPack, MemCube, SmartSSD and TurboCube are trademarks or registered trademarks of GridIron Systems, Inc. in the United States and/or other countries. All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such.

GridIron Systems, Inc.
726 Palomar Avenue
Sunnyvale, CA 94085
tel: (408) 470-4500
fax: (408) 470-4599
www.gridironsystems.com

©2012 GridIron Systems Proprietary and Confidential