



## Acceleration of Production Oracle Data Warehouse

“GridIron has significantly boosted our near real-time ETL and dashboard performance, and easily met the peak demands of our data and processing volumes during the holiday season.”

Shrikesh Karunakaran, Director of Data Warehouse, Shopzilla

### Challenge

Reduce the customer behavior analytics cycle from six hours down to less than one hour

### Environment

- ▶ Five-node Oracle RAC 10i with ASM (40 TB database)
- ▶ Dell 2950 server nodes (16GB DRAM) with dual QLogic 8Gbps FC HBAs
- ▶ IBM XIV Storage Systems
- ▶ QLogic SANbox 9000 Fibre Channel switches

### Solution

- ▶ Eight GridIron GT-1100 TurboCharger™ appliances

### Benefits

- ▶ Near real-time decision-making to optimize operations and maximize revenue
- ▶ Ability to support more online products
- ▶ Savings of over \$2M compared to alternatives

### Customer Background

Shopzilla, Inc. is an online price comparison service which enables shoppers to find, compare and buy anything, sold by virtually anyone, anywhere. The company manages a premier portfolio of online shopping brands in the US and Europe, consisting of Bizrate, Beso, Shopzilla, PrixMoinsCher and SparDeinGeld, that connects over 40 million shoppers each month with over 80 million products from tens of thousands of online retailers.

### Customer Challenge

Shopzilla lives between search engines and online retailers. They have developed a massive data warehouse for back end analysis of their 24x7 business operations, which monitors key indicators such as click-throughs from search sites and click-throughs onto their online merchant customers. This data is used to increase the click-through rates and adjust the Cost Per Click (CPC) charges thereby maximizing the revenue for the company.

*“Online data analytics is at the heart of what we do as a company. We live and die by our data!”*

Burzin Engineer, VP of Infrastructure Services, Shopzilla

Shopzilla’s production environment is built upon a high-performance 40 terabyte, five-node Oracle RAC 10i database cluster. In a fast-paced environment where massive database scans are a constant activity, being able to get near real-time analysis provides significant operational and competitive advantages. Shopzilla’s data warehouse system took approximately six hours to run one analysis cycle, in effect creating a six-hour delay in receiving analytical information on customer behavior. To stay competitive, Shopzilla needed a cost-effective system that could handle very high throughput and deliver a one hour analysis cycle.

### GridIron Solution

Shopzilla installed eight GridIron TurboChargers in a striped configuration and saw immediate performance improvements. Analysis cycles were reduced to less than 30 minutes, allowing Shopzilla to have a higher concurrency of analytics running, and enabling them to make immediate decisions to help improve their bottom line.

The GridIron TurboCharger boosts application performance up to 10 times by providing RAM-like access speeds to application data. The TurboCharger is a SAN-attached appli-

ance deployed between the server and storage. It continuously records the data access behavior of applications using Bayesian net analytics and predictively caches the data that is critical to application performance. The I/O requests from applications are fulfilled from the TurboCharger’s fast RAM and flash caches thus boosting their performance.

Gridiron delivered extraordinary value by providing near real-time analysis capabilities at a lower cost compared to traditional solutions that take over an hour to perform a similar analysis cycle. Most notably Gridiron did not require any upgrades to the existing environment.

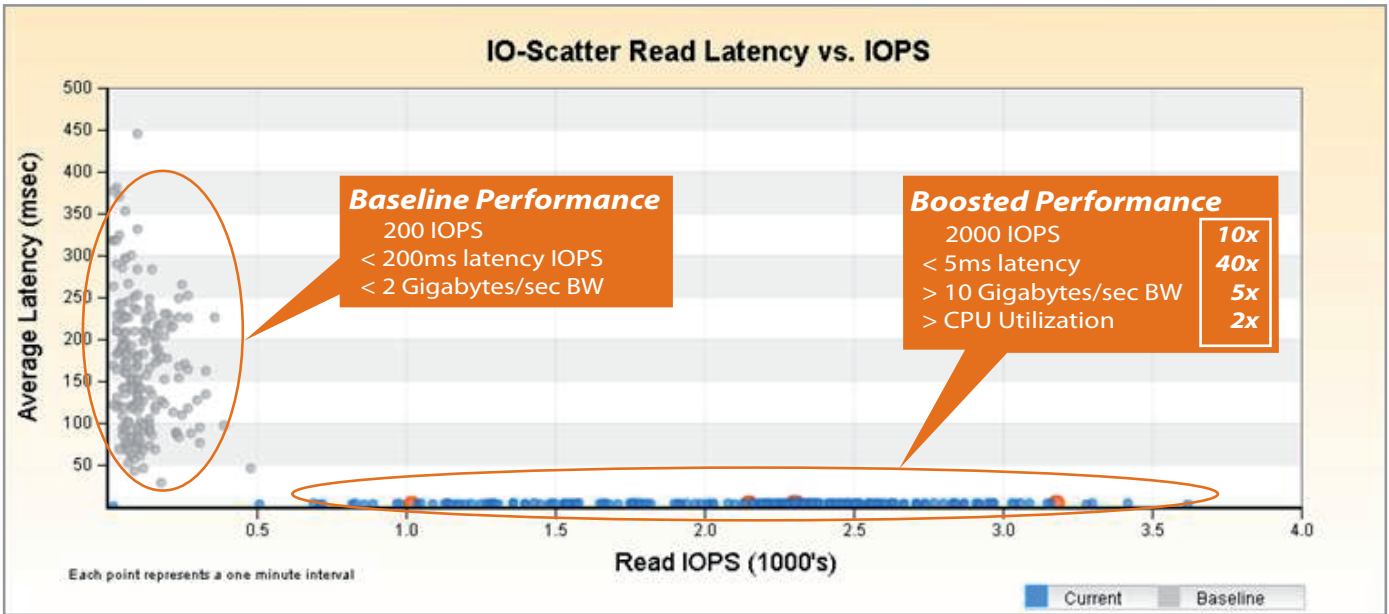
The performance improvements included:

- ▶ 40x reduction in application I/O latency
- ▶ 10x increase in IOPS
- ▶ 5x increase in bandwidth

### Customer Business Impact

The Gridiron solution delivers multiple benefits to the production Data Warehouse environment at Shopzilla:

- ▶ Provides near real-time decision-making capabilities to optimize operations and maximize revenue
- ▶ Minimizes lost revenue opportunities by detecting and correcting glitches and anomalies in the customer-facing infrastructure
- ▶ Ability to support more online products
- ▶ Ability to handle peak holiday loads without degradation in performance
- ▶ CapEx savings of over \$2M compared to alternative solutions



**Shopzilla Results Measurement—Before and After Gridiron**

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