

5000ms latency  
down to sub-1ms

**Performance**



Real-time decision making for  
forecast and supply chain

**Business  
Impact**



**COMPANY:**

Skullcandy  
[www.skullcandy.com](http://www.skullcandy.com)

**CHALLENGE:**

- Major Performance Problems in Production Systems

**SOLUTION HIGHLIGHTS:**

- VMware vSphere with Pure FlashArray 420
- Supports I/O-intensive production environment with many data sets

**USE CASE**

Virtualization + Database

**GEO**

North America

**INDUSTRY**

Retail

**SKULLCANDY BLASTS PERFORMANCE WITH FLASH FROM PURE STORAGE**

**Audio Maker Crushes Latency With Pure FlashArray**

Skullcandy, founded in 2003 and based in Park City, Utah, is a public company that markets specialized audio products for action sport athletes and the general consumer market. Skullcandy depends heavily on data analysis to make intelligent business decisions. Data analysis is made possible by using a virtualized data center based on VMware vSphere, which hosts large client databases, a data warehouse, forecasting systems and business analytics.

Storing and analyzing all of that data on a legacy system came at a steep price. Brent Allen, Director of Infrastructure, commented, “Spinning disk carries high management overhead for planned data growth. Unplanned, large and dynamic data additions to production systems means bunk beds in the racks parallel to your spinning disk.”

**PURE EXCEEDS EXPECTATIONS ON ALL FRONTS**

The IT team decided on flash to improve performance and researched all-flash solutions. At a conference, Allen’s team challenged Pure Storage and several other vendors to compete in a storage performance duel using Skullcandy’s production data.

The IT team copied as much of their production environment as possible, including several of their larger SQL and Oracle databases. Then they guided the vendors through different tests designed to measure performance and scalability in Skullcandy’s environment.

Pure Storage was the only vendor to meet or exceed every expectation and excelled while balancing performance, scalability and simplicity—all with reasonable cost. “The goal of the evaluation was find a storage solution that could meet the performance needs of our expanding productions systems for the next three years,” said Allen. “Pure Storage went beyond the three year model on into our more radical five-year+ models.”

## MASSIVE PERFORMANCE GAINS WITH SCALABILITY FROM PURE

With Pure, Skullcandy saw huge performance gains. Benefits included ultra-low latency and lightning-fast throughput. Over a recent 30-day period, the IT team saw just eight small spikes where latency exceeded a millisecond—a vast improvement contrast to the peak of 5000ms they experienced with their legacy storage. Throughput rates have also been astonishing. Allen said, “Some storage vendors actually fake their latency. But data throughput is hard to fake. None of us had even seen our 10GB pipe exceeded. Then we went past that to 20GB. Pure exceeded that, too. We were blown away by data throughput at that level.”

**“Pure’s performance is great—in fact, it’s over-performing, doing even more than what we need.”**

*Brent Allen, Director of Infrastructure*

FlashArray’s high performance has supported Skullcandy’s corporate efforts to identify and improve the availability of the products customers like most. The improved speed and reliability with Pure has enabled Skullcandy to scale its analytics system, allowing the company to understand what customers want at a level of granularity that was not possible before.

With Pure, Skullcandy has freed the data center space previously occupied by several legacy disk arrays. By consolidating databases that were previously spread across multiple servers and storage volumes onto a single server and FlashArray, Skullcandy significantly reduced pending database licensing costs with Oracle and Microsoft.

Skullcandy does not have a dedicated storage administrator, and with its new FlashArray, there is no need. They have also eliminated their storage management overhead. Interactions with the Pure support team have focused on fine-tuning the FlashArray. In addition to live support, Skullcandy’s IT team appreciates how Pure’s real-time dashboard provides helpful feedback with live stats, including latency, IOPs and bandwidth.

Regarding Pure’s management and support, Allen said, “Maintenance agreements are extremely expensive with other vendors, but Pure is adding value. It’s not just an insurance policy. Pure gives us what we need, and it’s enjoyable to make that investment.”



**PURESTORAGE**

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