

# Enabling a more Balanced and Efficient Server Performance

## Storage and Memory for Load-Balancing Device for Small-Scale Server Applications



### Introduction

**Innodisk provided an SSD solution for OS booting and storage, as well as DRAM for a load-balancing device motherboard. Other than the components, Innodisk also provided technical input and ideas during the design stage.**

A US partner approached Innodisk for help on a motherboard design case. The device in question was a hardware load-balancing device that helps direct computers to individual servers in a network. The main challenge was fulfilling the demands of the end customer with regards to constrained space, performance and longevity. The partner had less experience with memory and storage technology, it was up to Innodisk to craft a viable solution and offer guidance during the design process. The customer needed three specific components to solve their memory and storage specifications: two SSD for operating system boot-up and storage respectively, as well as high-performance, long-lasting DRAM.

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# Our Roadmap to Success

## 1U-Ready Small Form Factor Storage

### 16GB SATADOM-SH 3ME3 V2

- Designed for OS boot-up
- Small-Sized SATA connector
- Cable-less Power through Pin 8 technology

### 64GB mSATA MLC 3ME4

- Compact form factor
- Low power consumption

## High-Performance DRAM

### 4GB DDR4 2400 SODIMM

- Industrial-grade IC
  - Compact form factor
  - Suitable for 1U platforms
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## Challenges

- Uncertainty about available options: The partner needed assistance with both product choice and design
- Fitting and size constraints: The small size of the device put significant restrictions on component size and fittings
- DRAM longevity concerns: The partner needed robust DRAM, and was uncertain if consumer-grade offers would be up to par

## Solutions

- Communications and expertise: Innodisk could offer a viable solution from the start, and would continue to offer support throughout the design process through several channels
- Small form factors, mechanical fitting: With compact form-factors and smart fittings space constraints were easily mitigated
- Industrial-grade DRAM: With industrial-grade DRAM ICs, Innodisk could easily alleviate customer concerns about longevity quality

## Result

With Innodisk's expertise and strong lines of communications, the partner promptly had a viable and easy-to-implement solution on the table. When other issues popped up during the design process, Innodisk was present through multiple channels for input and assistance. This case amply demonstrates the importance of technical know-how and how it is utilized from the initial customer meeting all the way to product completion.

## Our Promise

We at Innodisk believe that through cooperation we can overcome any challenge. By maintaining a strong line of communication all the way from inquiry to implementation, we ensure a tailor-made solution that fits your application. We remain committed to innovation with our continual focus on hardware, firmware and software integration.