# THIRDWAVE Corporation Finds a Perfect Fit with Adaptec

## Adaptec 6405E is the only 6Gb/s SATA/SAS RAID adapter to fit company's 1U half-depth server

## Introduction

Headquartered in Tokyo, THIRDWAVE Corporation sells its custom PCs and servers online and through its chain of DOSPARA PC stores located throughout Japan. THIRDWAVE's Corporate Sales Division offers flexible server configurations that are unavailable from branded server manufacturers, as well as broad customer service that spans from pre-sales consulting to post-sales support, including flexible customization, compatibility testing, and performance testing. THIRDWAVE recently incorporated the Adaptec 6405E RAID adapter into its small form factor server configurations.

The 6405E is part of the Adaptec Series 6E family of entry-level SATA/SAS 6Gb/s RAID adapters designed to deliver affordable true hardware RAID that outperforms software-based HBAs and SATA controllers. It features 4 internal ports in a low-profile MD2 (2.535"H x 5.115"L) form factor, PMC's PM8013 Dual Core RAID on Chip (ROC), and a PCI-Express (PCIe) Gen 2 interface. Designed for entry-level server platforms, workstations and desktop systems, its on-board DRAM and Intelligent Power Management deliver the ideal price/performance and connectivity solution.

### The challenge of space-saving servers

Mr. Yasuyuki Echizenya and Mr. Akihiro Kamaya in THIRDWAVE's Corporate Sales Division recently discussed their decision to adopt the 6405E.

Our ExPrime Server R-280-HW is a new server system developed to meet the advanced requirements from the broad user base that installed our previous-generation models into

*Mr. Echizenya*

their hosting environment. The server's feature set includes a form factor is in half the depth (350mm) of a normal 1U server, an I/O interface that can be accessed from the front panel, an original chassis design that can be installed into a server rack from the front or back with adequate airflow, and two hot-swappable 2.5-inch drive bays that allow users to integrate dense server rack systems into their environments at an affordable price point. We have had a very good response from the field about this product.

Recently, an inquiry came from a hosting company that was using our previous model. They wanted to replace it with a new server system that has an SSD- and 6Gb/s-capable hardware RAID adapter for higher I/O performance. We proposed a successive R-280-HW base system, but it was difficult to find a 6Gb/s hardware RAID adapter that could fit properly into its small form factor chassis. Most adapters interfere with internal parts, and the SATA cables from the adapter to the SSD can't be formed without high mechanical stress.

*Mr. Kamaya*

## Executive Summary

### Challenge

THIRDWAVE was looking for a 6Gb/s hardware RAID adapter that could fit into its small form factor 1U half-depth server with no physical interference with other internal parts and no mechanical stress of the SATA cabling.

### Solution

Adaptec 6405E SATA/SAS RAID adapter featuring PMC's PM8013 Dual Core RAID on Chip (ROC) and a low-profile MD2 form factor.

### Result

The Adaptec 6405E is the only adapter on the market that can fit into THIRDWAVE's half-depth server without interfering with cabling or other internal components.

**THIRDWAVE**

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## Only the Adaptec RAID 6405E fit

After trying several adapters, we found that the Adaptec 6405E was the only one that would work in our chassis. The short-length form factor allowed for easy SATA cabling without any mechanical stress issues. Also, there were no compatibility issues with our motherboard (ASUS P8B-M) or any other components in the chassis.

Driver support for a variety of OSes was also high on our priority list because we expect growing demand for SSD-capable RAID adapters from our customer base. From that point of view, the 6405E's broad driver support for several OSes like Linux distributions and FreeBSD, as well as the downloadable Adaptec source code, are very helpful. In fact, this particular customer prefers to use Scientific Linux 6.1, and the only RHEL 6.0 driver available was on the Adaptec website. The customer's requirements were urgent, so we created an installation disk from the Adaptec source code and delivered the R-280-HW system to them [Note: the driver for RHEL6.2 is now available from Adaptec]. Our R-280-HW system with the 6405E adapter has been running in the customer's environment for more than three months with no issues.

## Products and support that meet the channel's needs

We find Adaptec products to be easier to use than products from other vendors because of Adaptec's user-friendly part numbers, infrequent part number changes, longer product life, and shorter response time for technical questions. In addition, unique Adaptec features like Copyback Hot Spare make it much easier for our customers to manage their servers, and provide great value on our entry-level solution compared to the brand-name competition in our price range. We hope Adaptec will keep providing the products to match the needs of channel system integrators like ourselves.

## About the customer

THIRDWAVE Corporation Corporate Sales Division profile:

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- THIRDWAVE's Corporate Sales Division offers flexible server configurations that are unavailable from branded server manufacturers, as well as broad customer service that spans from pre-sales consulting to post-sales support, including flexible customization, compatibility testing, and performance testing.

http://hojin.dospara.co.jp/

ExPrime Server R-280-HW

Adaptec RAID 6405E (64x130mm)

ExPrime Server after 6405E installation (red outline)

*"After trying several adapters, we found that the 6405E was the only one that would work in our chassis. The short-length form factor allowed for easy SATA cabling without any problems, and there were no compatibility issues with our motherboard or any other components in the chassis."*

Mr. Akihiro Kamaya
Corporate Sales Division, THIRDWAVE Corporation

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