

# Dataline Networks Finds Success with Adaptec maxCache SSD Caching



## Introduction

Melbourne, Australia-based Dataline Networks Pty Ltd was established in 2001 to provide IT and integration services to Australian small and medium businesses. The company incorporates skills in advanced computer systems and servers to provide effective solutions to businesses and mobile needs.

### The storage server challenge

Over the years, Dataline has developed strong relationships with customers focused on accounting systems and medium-sized database installations. The challenge has always been in providing storage performance that matches customers' processor and memory requirements while minimizing the storage sub-system costs.

The advent of virtual technology (VMware in particular) has added to the difficulty of building these servers because virtual environments demand both performance and capacity, while the guest OS requires high IOPS. It is relatively easy to build sufficient processing and memory capability into these machines, but the gap between processor performance and storage performance has been rapidly widening over the past few years.

"Almost all customers have a need for more speed," said Derek Lai, National Technical Manager of Dataline Networks. "Virtual environments are placing a heavy demand on storage subsystems, and customers are looking to move up from the base-level performance of SATA-only subsystems. The problem is one of capacity versus cost. By using SAS drives, customers have to build much larger servers at a far greater cost to provide the SAS capacity that their users need."

### The Adaptec maxCache SSD Caching Series

Adaptec recommended its new maxCache SSD Cache Performance Kit to Dataline as a solution for increasing the performance of random read data without affecting the performance of sequential data, and without endangering any data.

## Executive Summary

### Challenge

Delivering optimum storage capacity and high performance for virtual environments at a reasonable cost.

### Solution

Adaptec maxCache SSD Caching

### Results

- Immediate average customer savings of 60% compared to SATA/SAS solutions; further customer savings of an average of 50% in maintenance, support and energy costs.
- Major pricing advantage for Dataline in the fiercely competitive SMB market.



*"By migrating to Solid State Caching Technology with SATA drives our customers are getting both high performance and high capacity servers at a fraction of the cost of the alternative. It's a win-win for integrators and end-users alike."*

Derek Lai  
National Technical Manager of Dataline Networks.

## Dataline Networks Finds Success with Adaptec maxCache SSD Caching

Adaptec maxCache SSD Caching solves the storage price/performance dilemma by creating high-performance hybrid arrays of solid state drives (SSDs) and hard disk drives (HDDs) that perform up to 8X times faster than HDD-only arrays with up to 70% savings in costs.

Adaptec maxCache SSD Caching Software introduces a patent-pending Learned-Path algorithm to alleviate the bottleneck that can occur between server processors and hard drives by copying frequently-read data directly into an optimized SSD cache pool for faster retrieval in future requests.

The maxCache Series includes a variety of controllers, add-on kits, management dashboards and advanced settings with features designed to address a wide range of needs, including Intelligent Power Management (IPM) for energy-efficiency, Zero-Maintenance Cache Protection (ZMCP) for battery-free data protection, and the ability to choose your own SSD.

### Cost-efficient performance

Dataline's own testing confirmed that maxCache provides the right mix of performance, capacity and cost within many of Dataline's customer environments.

The integrator's initial concerns about the seemingly high price tag of solid state caching

were soon eliminated by the realization that they could build high-performance servers in much smaller chassis than previously possible, using fewer drives of higher capacity to meet the customer requirements. In fact, the overall cost of the solutions to customers was reduced by 60% on average, giving Dataline a major price advantage in the fiercely competitive SMB market.

In addition to the capital expense savings, maxCache is helping Dataline customers cut their maintenance, support, and energy costs in half.

“By thinking outside the box and by investing in this new solid state caching technology, Dataline has been able to fulfil customer requirements while gaining a competitive edge within the marketplace. Adaptec maxCache products are now an integral part of our system design for many of our virtual systems, database and web environment customers.

“When sold into the correct environment, the performance of servers that are built with Adaptec maxCache far exceeds what is possible using SATA drives alone. Moreover, using maxCache to create large capacity servers is also far cheaper and better-performing than using all SAS drives.”

### About the customer

#### Dataline Networks Pty Ltd

- Established in 2001.
- Specialising in professional IT & C services, Dataline Networks combine skills in WAN and the then emerging Broadband to provide I.T. services and solutions for Australian small and medium businesses.
- Brings together technology for mobile computing and central based IT & C systems.
- Friendly and professional support service, incorporating skills in advanced computer systems and servers to provide effective solutions to businesses and mobile needs.

#### Dataline Networks provides everything you need from an I.T. Department including:

- Help Desk and Remote Support
- On Site Service
- After Hours Support
- Professional and Strategic Advice
- Preventative Maintenance
- Supply of I.T. Products

#### Businesses that Dataline Networks help most include businesses:

- Without I.T. Staff
- That are geographically dispersed and in need of WAN and remote support
- With I.T. administration and support resources that tap into our knowledge base and expertise



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