



OBJECTIVE ANALYSIS

Semiconductor Market Research

OBJECTIVE ANALYSIS DETAILED REPORT

SOLID STATE DRIVES IN THE ENTERPRISE – 2010 *Available October, 2009*

Abstract:

This update to the acclaimed Objective Analysis enterprise SSD report: *Solid State Drives in the Enterprise*, gives an in-depth look at the reason for SSDs' success in this market and predicts further developments. In addition to an update of the prior report, this rendition adds company profiles of successful and promising players in this market.

Contents:

Executive Summary

Types of Enterprise Servers and what They Need

- Transaction Processing Systems

 - Charge Card Processing

 - Reservations Systems

 - Algorithmic Trading

 - Currency Exchange and Arbitrage

 - Electronic Inter-Bank Transfers

 - Trade optimization

 - Other Real Time Transaction Processing Systems

- Media Servers

 - Video on Demand (VOD)

 - Special Needs of HDTV

 - Broadcast Video

 - Video Production and Modeling

- Large Internet Servers

 - Real Time data/feed processing

 - Contextual Web Advertising

 - Data Warehousing

 - E-Mail Servers

 - Caching Requirements for Internet Servers

- Other Virtualized Machines

 - Video Surveillance

 - Call Centers

- Science & Engineering

 - Data Modeling

 - Weather/Life Sciences

 - Aerospace Design

 - Nuclear Fission Models

 - Software Development

Why Servers Need SSDs

- The Access Density Problem

- Random Read Misses (RRM)

- High IOPS

 - Read vs Write Speeds

 - IOPS per Dollar

 - IOPS per Watt

- Lack of Fragmentation Issues

- Reduced Power Consumption

- Cost Savings

 - Reduction in HDD count

 - Lower Cost of Storage

 - Reduction in Server Count

 - Power/Cooling Savings

 - Floor Space

- Reliability

 - Wear Reporting

- Operating Temperature Range

Why SSD Acceptance is Limited

- Scale Out Model vs Scale Up Models

- Cost

- Reliability Concerns

- Alternatives to SSDs

 - High-RPM HDDs

 - Short-Stroking

 - Striped HDDs & RAID Systems

The Impact of Price Reductions

- Enterprise SSD Price Forecast

Forecasts by Application

- Transaction Processing Systems

- Media Servers

- Large Internet Servers

- Science & Engineering

Vendor Profiles

A vendor-by-vendor analysis of both DRAM and flash SSD vendors. All leading vendors will be included with a review of their offerings, their markets, and their strengths and weaknesses.