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BiTMICRO's new patent underscores position in solid-state disk industry

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It appears that the moment a storage device boosts capacity; it becomes difficult to perform the I/O functionalities, such as write, read and erase, during an operation. The newly acquired patent by BiTMICRO Networks from the United States Patent and Trademark office, entitled "Method and Apparatus for Testing a Storage Device," pertains to a method of testing storage device I/O functionality during a storage operation.

The new technique is the core technology found in the E-Disk Analyzer of BiTMICRO's proprietary Flash Analysis Development System.

A storage device is commonly used to refer to hard disk drives, which have moving parts and to solid-state memory devices, which use solid-state memory as their main storage medium and a device interface commonly found in hard disk drives.

Testing a storage device may include repeatedly writing and reading test data across selected or all memory locations available on the drive. Erase operations may also be performed. The test data and its address must be tracked or accounted for so that data subsequently read at the same address may be verified.

Test data verification and I/O functionality testing becomes increasingly more difficult to accomplish since it may become difficult to distinguish between similar test data that were written at adjacent locations in different time intervals. Increasing the number of different types of test data may reduce confusion between test data stored at adjacent addresses but adds complexity.

The E-Disk Analyzer is a Flash Analysis Development System that emulates and tests flash memory in a solid-state disk. It is a software tool which complements BiTMICRO's E-Disk product line. The E-Disk product line is a drop-in replacement for standard rotating hard drives but the architecture behind the product is much more complicated and called for a more powerful testing tool, claims Engineering Manager Jhay Gregorios.

Providing testing and reporting capabilities, E-Disk Analyzer is used by the company's hardware, manufacturing, firmware application and field engineers in all phases of the E-Disk flash drive's lifecycle. It is also a key to diagnosing even the most complex problems in their laboratories and even in the field. Aside from being a critical component in the company's internal testing procedures; E-Disk Analyzer also has versions for customers who wish to perform additional

testing on their purchased products.

"This new patent adds another layer of protection to our overall first-class product line. It has given BiTMICRO the advantage in the area of customer support and satisfaction. By using the E-Disk Analyzer, customers are able to modify E-Disk user programmable features, monitor its performance and statistics, and upgrade E-Disk firmware to the latest version", says Gregorios.

Gregorios sees added revenues to the company's product lineup with the latest patent: "The patent provides more exposure to our testing methods (E-Disk Analyzer) and subsequently more exposure to our E-Disk products. People who were previously unaware of the huge benefit our products provide, will now understand that BiTMICRO is not just a pioneer in the solid-state storage industry but also a pioneer in storage testing methods."

BiTMICRO is positive that their growing IP portfolio is an assurance to customers that they will always remain at the cutting-edge of memory management and solid-state disk technology.

Kathryn Gerardino

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