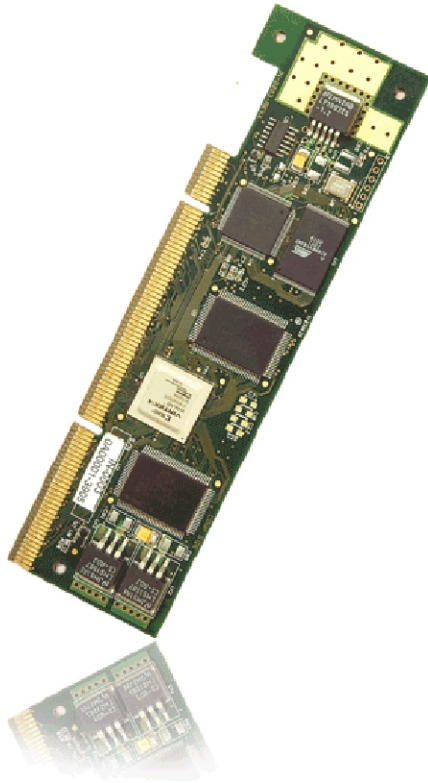


SS300



Introduction

Companies dealing with sensitive data must ensure its security. When backing up such data, it must be encrypted, especially if it will be sent off-site. Most backup applications can encrypt data, however, backups encrypted in software take much longer to complete than a comparable non-encrypted backup. The reason is that encryption is a mathematical process; one that is CPU-intensive. This performance gap can be filled by encrypting data in hardware.

Generally, when data is backed up, it is compressed. This reduces the size of the data and usually speeds up the backup. However, compression is also very CPU intensive and hence the speed benefit is seen only if it is done in hardware.

The SS Series of boards deliver

real time compression and encryption of data as it is being backed up. This offloads two major tasks from the server processor preventing bottlenecks during backup. Two separate engines perform the tasks of compression and encryption independently.

Key management is a critical issue with encryption. If the key is lost, the data cannot be recovered. At the same time, if the key is revealed to an unauthorized person, the security of the data is lost.

SS series has the ability to store keys in flash memory within the card. These keys can be managed with a simple API. Alternatively, the application can use its own key management, if desired.

StorSecure SS300 Features and Benefits

Feature	Benefit
Data compression and encryption in hardware	Reducing the cpu utilization.
Compression and encryption engines run parallel	Thus saves on time with improved performance.
Compression and encryption can be done in one go.	Data can be compressed and encrypted in real time. No need to have in between interface
Key Management in hardware using software interface.	Now keys are managed more securely and easily.

Applications

- Tape encryption appliances
- Disk based backup appliances
- Backup servers.

Technical Specifications

Specifications	StorSecure 300
Encryption Algorithm	AES with ECB mode
Key sizes supported	128 and 256 bits
Max Keys Stored	16
Compression Algorithm	GZIP/ZLIB format
Compression Ratio	Calgary corpus 2.464:1 Canterbury corpus 2.875:1
Performance	Compression: 55 - 70 Mbyte/sec Decompression: 80 - 90 Mbyte/sec Encryption: 85 MB/s (128-bit), 65 MB/s (256-bit) Decryption: 85 MB/s (128-bit), 65 MB/s (256-bit) Compress and Encrypt: 55 - 70 MB/s
Operating System Support	Linux Redhat 7.2, 8.0, 9.0 Fedora Core 2,3,4 (Driver source available to OEM customers) Windows 2000, Windows XP, Windows Server 2003
Power Consumption	+3.3V 750 mA (Typ)/1.01 Amp (Max) +5V 190 mA (Typ)/230 mA (Max)
Bus Type	PCI-X 2.0 64 bits, 66MHz PCI 2.3 64 bits, 33MHz
Humidity Range	5% - 85% (non-condensing)
Operating Temperature	Ambient Temperature: 5-45 deg. C
Dimensions	Form Factor: Low Profile, MD2

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