NEW!

ABS V4.5 with Encryption –*"Securing Backup Data"*

WHY DATA ENCRYPTION AND WHO NEEDS IT?

Regulatory compliance has increased and has demanded the need for data security in all businesses. Financial, HealthCare, Public Sector, Telecommunication, Manufacturing and many others now are required by law to protect their data and customers' confidential information.

Encryption techniques and cryptographic algorithms help secure information and prevent theft of data. So, who needs encryption? Anyone who wants to protect their own and their customers' data!

WHAT IS HARDWARE AND SOFTWARE ENCRYPTION? WHAT ARE THEIR DIFFERENCES?

HARDWARE ENCRYPTION	SOFTWARE ENCRYPTION
Hardware Encryption is the process of encrypting data with a separate hardware device that has encryption capabilities. For example, the LTO4 drive in an EML library with a Secure Key Manager provides hardware encryption capabilities.	Software Encryption is performed by the backup software with encryption algorithms like DES and AES, using the system processor to encrypt the data that is then transferred to the storage device.
Hardware Encryption is designed to be transparent to the operating system and it works across different operating systems.	Software Encryption is tied to the operating system and the backup software. For example, the OpenVMS V8.3 BACKUP Utility provides encryption to the OpenVMS V8.3 system.
Data is normally encrypted without end user intervention.	End users can provide keys under manual mode or encrypt in an automatic mode that will not require intervention.
The storage device (disk or tape) used must support hardware encryption.	There is no restriction on the storage device used since the encryption is performed by the software.
As the hardware performs the key management functions, the end user does not have to worry about the keys.	The key is stored on the system itself and hence the user is responsible for its safety.

WHEN DO WE USE HARDWARE ENCRYPTION AND WHEN SOFTWARE ENCRYPTION?

Hardware encryption is more robust, more expensive and has faster performance than software encryption. Software encryption is used when the customer requires data encryption capabilities but would prefer an inexpensive solution and is willing to trade-off archiving speed for security.

Encryption is a computationally intensive operation. It may not impact performance noticeably when performed on smaller data sizes but when large data amounts are involved there may very well be a noticeable performance impact.

WHAT IS KEY MANAGEMENT? HOW IS IT ESSENTIAL FOR DATA PROTECTION?

Encryption Keys are required to read and restore the secure encrypted data. Even if the encrypted data is stolen, it is unreadable without the corresponding key to decrypt the encrypted data. Hence, there is a need for sophisticated key management procedures. If the key is lost, access to the encrypted data is also lost. Therefore, keys need to be managed with utmost care.

HOW WILL THE NEW ABS HELP PROTECT YOUR DATA?

ABS V4.5 includes Software Encryption with centralized key management. You can now encrypt your data using ABS V4.5 with a choice between manual and automatic key management before the data is backed up on tapes.

ABS has been qualified with the SKM (Secure Key Manager) and the MSL Encryption Kit and can use hardware encryption on LTO4 in both the Enterprise Class Tape Libraries (EML/ESL) and the Business Class Tape Libraries (MSL) to secure data.

WHAT IS MEANT BY MANUAL AND AUTOMATIC KEY MANAGEMENT? HOW WILL IT BE SUPPORTED ON ABS V4.5?

Manual Key Management requires the Storage Administrator to manually keep track of the keys used for data encryption. Note: The encrypted data cannot be retrieved if the key is forgotten.

Centralized and Automatic Key Management will be available on ABS V4.5. Automatic key generation during data encryption and automatic key retrieval during data restore will be handled by ABS V4.5.

WHERE CAN I GET MORE INFORMATION ON ABS & THE LATEST RELEASE, V4.5?

You can get more information about the ABS product from the ABS homepage http://h71000.www7.hp.com/openvms/storage/abspage.html. Also, you may refer to the Software Product Description (SPD) found at http://docs.hp.com/en/OpenVMS.html .