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Secunia
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Managing BitLockered UEFI computers using network boot and System Center 2012 R2 Configuration Manager

BCD|SINTRAG
value add distribution

Configuration Manager

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UEFI versus legacy

UEFI versus Legacy

Legacy

- Older version Basic Input Output System (BIOS)
- Provides core functionality necessary to turn on pre-os
- Lacks todays hardware support (for example mouse support)
- BIOS can be vulnerable to malware

UEFI

- New standard of BIOS,Provides a more advanced boot interface
- Offers more configurable options
- Supports additional hardware types.
- Windows 8 Secure Boot to prevent malware from running in the boot process

GPT versus MBR

GPT versus MBR

MBR

- Master boot record – introduced in 1983

- Special boot sector at beginning of a drive, this sector contains a boot loader for the install os.

- Works with disks up to 2TB in size but it can't handle more than that.

- Supports up to 4 primary partitions, if you want more create extended partitions

GPT

- Guid Partition Table, new standard replacing MBR, associated with UEFI.

- Supports additional hardware types.

- Windows 8 Secure Boot to prevent malware from running in the boot process

GPT partition types

Primary

- PARTITION_BASIC_DATA_GUID
- ebd0a0a2-b9e5-4433-87c0-68b6b72699c7

Recovery

- PARTITION_MSFT_RECOVERY_GUID
- de94bba4-06d1-4d40-a16a-bfd50179d6ac

Boot images and device architecture

Boot images and device architecture

x64

- Most new UEFI devices are 64bit therefore they require a 64bit boot wim

- Remember the LIFO problem and how to deal with it

- UEFI based systems such as the Surface Pro or other UEFI systems require that the boot files reside on FAT32 partition. If they are not FAT32 the system may not see the device as bootable.

- Fat32 has a 4gb file size limit as a result keep your images small or use workarounds to resolve

Fat32 4gb limit Workarounds include

Option #1: Utilize split images

Option #2: Create multiple partition USB drive

BitLocker Challenges

BitLocker Challenges

UEFI mode when BitLockered in WinPE

- No suitable NTFS partition to write

- Recovery drive doesn't retain drive letter

- Workaround: Swap partition type from Recovery to Primary

Demo

Weitere Infos

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https://www.microsoft.com/learning/en-us/course.aspx?ID=20695A&Locale=en-us

https://www.microsoft.com/learning/en-us/course.aspx?ID=20696A&Locale=en-us

Danke

Herzlichen Dank

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