How to Create USB OS Installation Media

Lenovo Enterprise Product Group

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1.0 Introduction

1.1 Overview

This document introduces the steps to create a USB OS installation media. Such media can be used during the OS deployment with ThinkServer Deployment Manager instead of the OS DVD ROM.

1.2 Audience

This document is intended for the customers who use the ThinkServer Deployment Manager on Lenovo servers.

2.0 Preparation

2.1 USB Drive Selection

It is recommended that you use a USB drive with a capacity larger than 7GB to create the installation media.

The USB drive must support the USB2.0 or USB3.0 standard.

The USB drive must be a **removable** storage device.



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3.0 Create Windows Installation Media

3.1 Format the USB drive

Use "Windows Explorer" to format the USB drive. Select "**File system**" to be "**NTFS**".

| Format Removable Disk (E:) | | | | | | |
|---|--|--|--|--|--|--|
| Capacity: | | | | | | |
| 7.45 GB | | | | | | |
| File system | | | | | | |
| NTFS | | | | | | |
| Allocation unit size | | | | | | |
| - 4096 bytes | | | | | | |
| | | | | | | |
| Restore <u>d</u> evice defaults | | | | | | |
| | | | | | | |
| Volume <u>l</u> abel | | | | | | |
| | | | | | | |
| | | | | | | |
| Format options | | | | | | |
| Format options | | | | | | |
| Format options ✓ Quick Format ✓ Create an MS-DOS startup disk | | | | | | |
| Format options ✓ Quick Format ✓ Create an MS-DOS startup disk | | | | | | |
| Format options ☑ Quick Format ☑ Create an MS-DOS startup disk | | | | | | |
| Format options | | | | | | |
| Format gptions | | | | | | |

3.2 Copy setup files

| Removable Disk (E:) | | | | | | | | |
|---|-------------|--------------------|-------------------|--|--|--|--|--|
| G - Computer • Removable Disk (E:) • • • • • Search Removable Disk (E:) | | | | | | | | |
| Organize 🔻 Share with 💌 N | lew folder | | := - 🗔 🔞 | | | | | |
| 🔆 Favorites | Name * | Date modified | Type Size | | | | | |
| 🤜 Desktop | boot 🐌 | 7/14/2014 9:24 AM | File folder | | | | | |
| Downloads | 🔒 efi | 7/14/2014 12:37 PM | File folder | | | | | |
| 🔠 Recent Places | sources | 7/14/2014 9:35 AM | File folder | | | | | |
| 🔁 Libraries | 🍌 support | 7/14/2014 9:35 AM | File folder | | | | | |
| Documents | 🔒 upgrade | 7/14/2014 9:35 AM | File folder | | | | | |
| J Music | autorun | 11/21/2010 2:33 AM | Setup Information | | | | | |
| Pictures | bootmgr | 11/21/2010 2:33 AM | File | | | | | |
| Videos | bootmgr.efi | 11/21/2010 2:33 AM | EFI File | | | | | |
| P Computer | 🛃 setup | 11/21/2010 2:33 AM | Application | | | | | |
| Removable Disk (E:) | | | | | | | | |
| CD Drive (F:) DVD_ROM | | | | | | | | |
| 👰 Network | • | | | | | | | |
| 9 items | | | | | | | | |

Copy all the files from Windows setup DVD to the USB drive.

For Windows server 2012 series, Windows Server 2012 R2 series and Windows Small Business Server 2011 Standard, the USB media is completed.

For Windows server 2008 R2 series, an extra file "**\efi\boot\bootx64.efi**" must be added to make the USB drive bootable in UEFI environment.

This file can be extracted from the file "sources\install.wim".

Assume the drive letter of the USB drive is "E:". Execute following commands in a command prompt window: mkdir c:\mnt dism /mount-wim /wimfile:e:\sources\install.wim /index:1/mountdir:c:\mnt /readonly mkdir e:\efi\boot copy c:\mnt\windows\Boot\EFI\bootmgfw.efi e:\efi\boot\bootx64.efi dism /unmount-wim /mountdir:c:\mnt/discard



Now the USB media is ready to use.

4.0 Create Linux Installation Media

4.1 Format the USB drive

In the Windows environment, use "Windows Explorer" to format the USB drive. Select "File system" to be "FAT32".

| Format Removable Disk (E:) | | | | | | |
|--|--|--|--|--|--|--|
| Capacity: | | | | | | |
| 7.45 GB | | | | | | |
| File system | | | | | | |
| FAT32 (Default) | | | | | | |
| Allocation unit size | | | | | | |
| 4096 bytes | | | | | | |
| Restore device defaults Volume label | | | | | | |
| | | | | | | |
| Format options | | | | | | |
| Quick Format Create an MS-DOS startup disk | | | | | | |
| Start Close | | | | | | |

In the Linux environment, execute the command to format the USB drive (assume the device name of the USB drive is "/dev/sdb1"): mkdosfs/dev/sdb1–F32

4.2 Copy setup files

Copy all the files from Linux setup DVD to the USB drive.

| Removable Disk (E:) | | | | | | | | | |
|------------------------------------|-------------------|-------------------|--------------|-----------|--|--|--|--|--|
| G Computer - Removable Disk (E:) | | | | | | | | | |
| Organize 🔻 Share with 👻 New folder | | | | | | | | | |
| 🗆 🚖 Favorites | Name * | Date modified | Туре | Size 🔺 | | | | | |
| 🧮 Desktop | 퉬 boot | 6/14/2013 2:25 PM | File folder | | | | | | |
| 🚺 Downloads | 퉬 docu | 6/14/2013 1:44 PM | File folder | | | | | | |
| 🔠 Recent Places | 鷆 efi | 6/14/2013 1:43 PM | File folder | | | | | | |
| 🗆 🧮 Libraries | 퉬 media. 1 | 6/14/2013 2:25 PM | File folder | | | | | | |
| Documents | 퉬 suse | 6/14/2013 1:44 PM | File folder | | | | | | |
| ⊥ 🌙 Music | ARCHIVES.gz | 6/14/2013 2:24 PM | GZ File | 5,723 KB | | | | | |
| 🕀 🔛 Pictures | ChangeLog | 6/14/2013 2:23 PM | File | 27,781 KB | | | | | |
| 🕀 📑 Videos | content | 6/14/2013 2:25 PM | File | 15 KB | | | | | |
| | content.asc | 6/14/2013 2:25 PM | ASC File | 1 KB | | | | | |
| □] = Computer | content.key | 6/14/2013 2:25 PM | KEY File | 1 KB | | | | | |
| Removable Disk (E:) | 🖹 control | 5/31/2013 5:36 AM | XML Document | 60 KB | | | | | |
| 🕀 🏭 CD Drive (F:) | COPYING | 6/14/2013 1:45 AM | File | 18 KB | | | | | |
| | COPYING.de | 6/14/2013 1:45 AM | DE File | 26 KB | | | | | |
| 🕀 📭 Network | COPYRIGHT | 6/14/2013 1:45 AM | File | 2 KB | | | | | |
| | COPYRIGHT.de | 6/14/2013 1:45 AM | DE File | 2 KB | | | | | |
| | directory.yast | 6/14/2013 2:25 PM | YAST File | 1 KB | | | | | |
| | gpg-pubkey-3d25d3 | 6/14/2013 1:45 AM | ASC File | 2 KB | | | | | |
| 28 items | | | | | | | | | |

Now the USB media is ready to use.