DRBL - Diskless Linux Solution

■ http://drbl.org ■ http://drbl.nchc.org.tw

DRBL (Diskless Remote Boot in Linux) provides a diskless or systemless environment for client machines. It works on Debian, Ubuntu, Fedora, Red Hat Enterprise Linux, CentOS, Scientific Linux, and SuSE. DRBL uses distributed hardware resources and makes it possible for clients to fully access local hardware. It also includes Clonezilla SE (Server Edition), a partitioning and disk imaging/cloning utility similar to Symantec ghost. DRBL took home first prize in the "Public Sector Applications" category at the French “Trophees du Libre” (a.k.a. International Free Software Contest) held December 2007.

License: GPL

Features:

1. Peacefully Co-exists with Other OSs !

DRBL uses PXE/etherboot, NFS, and NIS to provide services to client machines so that it is not necessary to install GNU/Linux on the individual client hard drives. Once the DRBL server has been established, the client machines can boot "disklessly" via PXE or Etherboot. DRBL doesn't touch the client hard drives, therefore, other installed OSs (e.g. MS Windows) are unaffected. This is useful, for example, during a phased deployment of GNU/Linux where the user wants the option of booting into MS Windows.

2. Simply Install DRBL on a Single Server and all your Clients are Ready To Go !

Using a standard PC, you can transform a group of client PCs into a working GNU/Linux network in two simple steps:

- Download the DRBL package
- Run the install program

In only 30 minutes, all client machines will be ready to run GNU/Linux and all associated packages. No more cloning of client machines one-by-one; just use DRBL !

3. Save on Hardware, Budget, and Maintenance Fees!

Hard drives are optional with the DRBL client. If a hard drive is present, the client can be configured to use it as swap or data space while GNU/Linux is installed and configured on the centralized boot server. A lot of time can be saved by configuring the client settings at the boot server when using the DRBL centralized boot environment. This gives the system administrator more control over what software configurations are running on each client.

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Clonezilla - The Free and Open Source Software for Disk Imaging and Cloning

■ http://clonezilla.org ■ http://clonezilla.nchc.org.tw

Clonezilla
Free Software Lab, NCHC, Taiwan

Clonezilla is a partition and disk imaging/cloning program similar to True Image® or Norton Ghost®. It helps you to do system deployment, bare metal backup and recovery. Two types of Clonezilla are available, Clonezilla live and Clonezilla SE (server edition). Clonezilla live is suitable for single machine backup and restore. While Clonezilla SE is for massive deployment, it can clone many (40 plus!) computers simultaneously. Clonezilla saves and restores only used blocks in the hard disk. This increases the clone efficiency. With some high-end hardware in a 42-node cluster, a multicast restoring at rate 8 GB/min was reported.

License: GPL

Features:

- Many File systems are supported: (1) ext2, ext3, ext4, reiserfs, reiser4, xfs, jfs, btrfs, and f2fs of GNU/Linux, (2) FAT12, FAT16, FAT32, NTFS of MS Windows, (3) HFS+ of Mac OS, (4) UFS of FreeBSD, NetBSD, and OpenBSD, (5) minix of Minix, and (6) VMFS3 and VMFS5 of VMWare ESX. Therefore you can clone GNU/Linux, MS windows, Intel-based Mac OS, FreeBSD, NetBSD, OpenBSD, Minix, VMWare ESX and Chrome OS/Chromium OS, no matter it's 32-bit (x86) or 64-bit (x86-64) OS. For these file systems, only used blocks in partition are saved and restored. For unsupported file system, sector-to-sector copy is done by dd in Clonezilla.
- LVM2, under GNU/Linux, is supported (although LVM version 1.0 is not).
- Clonezilla SE supports Multicast.
- Boot loader, including grub (version 1/2) and syslinux, could be reinstalled.
- Both MBR and GPT partition formats of hard drive are supported. Clonezilla live also can be booted on a BIOS or uEFI machine.
- Unattended mode: Almost all steps can be done via commands and options.
- One image could be restored to multiple local devices.
- The image file can be on local disk, ssh server, samba server, NFS server or WebDAV server.
- AES-256 encryption could be used to secures data access, storage and transfer.
- DRBL-Winroll, another free software developed by the NCHC, can be used to automatically change the hostname, group, network, SID(need third party tool) and provide system resource monitor of a cloned MS Windows machine.

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