openSUSE LiveCD

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What is a LiveCD?

- boot from CD
- run Linux without installation
- all run-time data from CD
Why LiveCD?

- SUSE: demonstrate SUSE Linux with (nearly) no risk
- extensive rescue tool
- Knoppix: full Linux distro running from CD
How exactly does it work?

- boot kernel and initrd
- load storage modules and search for LiveCD
- major part resides compressed on CD
- mount it
How exactly does it work?

- copy datat hat must be writable into RAM (tm pfs)
- change root directory
- run usals tartup scripts
Detailed guide
Getting started

- SUSE Linux installation media
- openSUSE Factory tree
- LiveCD project on forgen.ovell.com (SVN only)
- Read documentation
- install loop package
Config/default.conf

- build_area
- RPM_PATH
- MYSEL
Package list

- basic selections ('=')
- add ('+') or remove ('-') individual packages
- make list-of-RPMs
- dependencies are resolved automatically
make inφ r/sbin

- install all packages
- apply patches (directory 'Fixes')
- add additional ata (*.targ z)
make CDsetup

- CDsetup p =i nit
- needs kernel module info b r building
make outer.iso

• build and compress initrd

• convert installed system to iso9660mage('inner.iso')

• compress resulting inner.iso to cloop.img

• build final LiveCD iso with cloop.img, kernel, initrd
Testing

- add your own RPMs to RPM_PATH
- LiveCD size estimate is only an approximation
- change build scripts to continue for small errors
- TEST_PARTITION
Future
Different filesystems

- better compression (SquashFS)
- seamless merge of writable files (Unionfs)
Save state

- on USB storage
- on hard diskp artition
Esoteric

- run over NFS (e.g., to track file accesses)
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Company Facts

- Serves 81% of the Fortune 500
- Powers more than 3.8 million servers
- Supports in excess of 80 million users worldwide
- Supports of 27,000 channel partners, 40,000 ISVs and top industry alliance partners
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