Easy-LTSP

How to configure an openSUSE LTSP server easily
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Jan Weber
About Jan Weber

• Born 1983
• Student
  Applied computer science
  University of applied science
  Offenburg
• openSUSE member
  • openSUSE Education
• jan.weber@opensuse.org
• the_code in irc.Freenode.net
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Linux Terminal Server Project
LTSP

• Add-on for Linux Systems
• Applications run on the server
• Thin-clients are used for user interaction
• Thin-clients are normally low-powered and lack a hard disk
• Legacy computers can be turned into thin-clients
• Terminal Server are becoming popular in educational institutions and enterprises
LTSP boot process

- PXE / CD-ROM / USB
- Kernel & Initrd
- NBD or NFS mount
  - Client image
- Change to new
  - root filesystem
- Run /sbin/init
- LDM login
KIWI-LTSP
KIWI-LTSP

- KIWI Image System is used to create thin-client images
  - KIWI is widely used (SUSE-Studio, Build Service)
  - KIWI is integrated in YaST
  - Local applications can easily be added to client images
  - PXE, CD and USB images can be created with one configuration
- Visit [http://kiwi.berlios.de](http://kiwi.berlios.de) for more information
KIWI-LTSP Services

- DHCP server for network configuration
- TFTP server for boot images
- NBD/NFS for client images
- SSH LDM uses SSH for Xsession
- LTSPFS for mounting local devices
Easy-LTSP

• Developed during Google Summer of Code 2008
• Mentored by Jigish Gohill (cyberorg) and Lars Vogdt (kl_eisbaer)
• Configuration of LTSP server easier
• Designed to work with all distributions
KIWI-LTSP Configuration

- Easy-LTSP can be used to create client images, PXE, USB and CD
- Prebuild images should require no configuration
- Configuration of KIWI-LTSP image creation in three different ways
  - Automatic detection of settings
  - Simple configuration of IP settings
  - Advanced configuration for all settings
Easy-LTSP – Prebuild Images

Easy-LTSP Question

Prebuild images

You have chosen to use prebuild images. Please make sure the IP configuration is correct!
IP: 10.0.0.254
Interface: eth0
DHCP Range: 10.0.0.50 10.0.0.100

[Red Up] [Green Yes]
Easy-LTSP – Live USB Image
Easy-LTSP – KIWI-LTSP simple
Easy-LTSP – KIWI-LTSP advanced
LTSP task Configuration

- Configuration of common settings using tasks
  - Display
  - XServer
  - SWAP
  - AutoLogin
  - Printer
  - Mouse
  - Language
  - Connect to Windows Server
  - Sound
  - Localdev
  - Disable X Security
  - Keyboard
Easy-LTSP – LTSP tasks
Easy-LTSP – Display Task
Easy-LTSP – Localdev task
LTSP Configuration

- Expert configuration for each variable
- Thin-clients can be added to a configuration section
Easy-LTSP – Advanced configuration

- X_MODE_1: 640x480
- X_MODE_2: 800x600
- X_COLOR_DEPTH: 16
- NBD_SWAP: True
- USE_LOCAL_SWAP: False
- SWAPPFILE_SIZE: 64
- LOCALDEV: TRUE

Version: 0.5.247.241.006
Easy-LTSP – Thin-Clients

![Easy-LTSP Thin-Clients](image)
Future of Easy-LTSP
Future of Easy-LTSP

- Easy-LTSP-NG
  - Development started
  - Python
  - PyGTK
- Possible cooperation with Ubuntu project
  - TCM-NG (Thin Client Manager Next Generation)
  - Jordan Erickson, Josh Dukes
Unanswered questions?