

Providing new users with EGEE technology using Knoppix

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Overview

- What is Knoppix
- How can it be used in EGEE NA3 and NA2 ?
- Pros and Cons
- Alternatives
- Summary

What is Knoppix

- Linux distribution, based on Debian
- Created by Karl Knopper (www.knoppix.net)
- **Capable of running entirely from CD**
- Uses ramdisk, doesn't touch harddrive by itself
- Uses compressed filesystem - provides about 2 GB / CD
- Can easily be installed on the HD
- Stable, secure, easy to use (even for unexperienced people)
- **Easily customizable - can deliver almost arbitrary programs with the CD**
- Used successfully in ROOT workshop at FZK

How to use Knoppix in NA3 and NA2

- Install User Interface for LCG / Gilda testbed in Knoppix
- Give Knoppix / Gilda CD to users, possibly together with certificate
- **Users do not have to bother with installation tasks**
- Can be installed on local HD of lab machines, if desired
- No messing up of machines, can always go back to default state by rebooting
- RB, SE, CE etc. can also be provided as Knoppix CDs
- Makes dissemination easy - users can learn Grid technology instead of having to bother with setting up an environment

Pros

- Defined environment
- Easy to use
- No installation hassels for user and trainer
- Large passive outreach (offer CD image for download)
- Can be used in public demonstrations (fairs, ...)

Cons

- Requires comp. high ressources (this machine: 192 MB, 850 Mhz)
- Can't fix an installation error that is already on the CD
- Requires Linux knowledge to use
- Debian based (not Red Hat 7.3 + changes)

Usermode Linux

- Linux kernel running under Linux as a user program
-> partition machine
- Can install any Linux distribution in disk image
- Relatively performant (slow disk i/o), doesn't emulate, runs from HD
- Image can be modified even after creation
- Requires a Linux host machine
- Requires some Linux knowledge

Summary

- Easy methods available to bring EGEE technology to new users
- Allows self-training (in conjunction with Web- oder Video-based courses)
- Could create flood of new users (do we want that ?)
- Setting up might be difficult, but expect large benefits for training and dissemination
- Would represent technical contribution of NA3 to EGEE