

Fully Automatic Installation

What is FAI ?

- System for unattended Linux installation
- Installs and configures the whole OS and all additional software
- Centralized configuration management and administration
- Scalable and flexible rollout method for Linux migration
- **Linux deployment in only a few minutes**

Why use FAI ?

- Manual installation takes hours, FAI just minutes
- Recurring tasks are boring and lead to errors
- You need an infrastructure management
- You want to save time

Features

- Installs Debian, Ubuntu, Rocky, Alma, Linux Mint, SuSe,
- **Class concept** supports heterogeneous configuration and hardware
- **Autodiscover** of the install server
- Creates disk images for KVM, XEN, VirtualBox, VMware or cloud VMs
- It's easy to create a **customized Live ISO**
- Reproducible installation
- Automatic documentation in central repository
- Automated hardware inventory
- Full remote control via ssh during installation process
- FAI runs on i386, AMD64, ARM64 and IBM z10 mainframe
- Several GUI for FAI using GOsa, openQRM, DC²
- **FAI.me web build service**

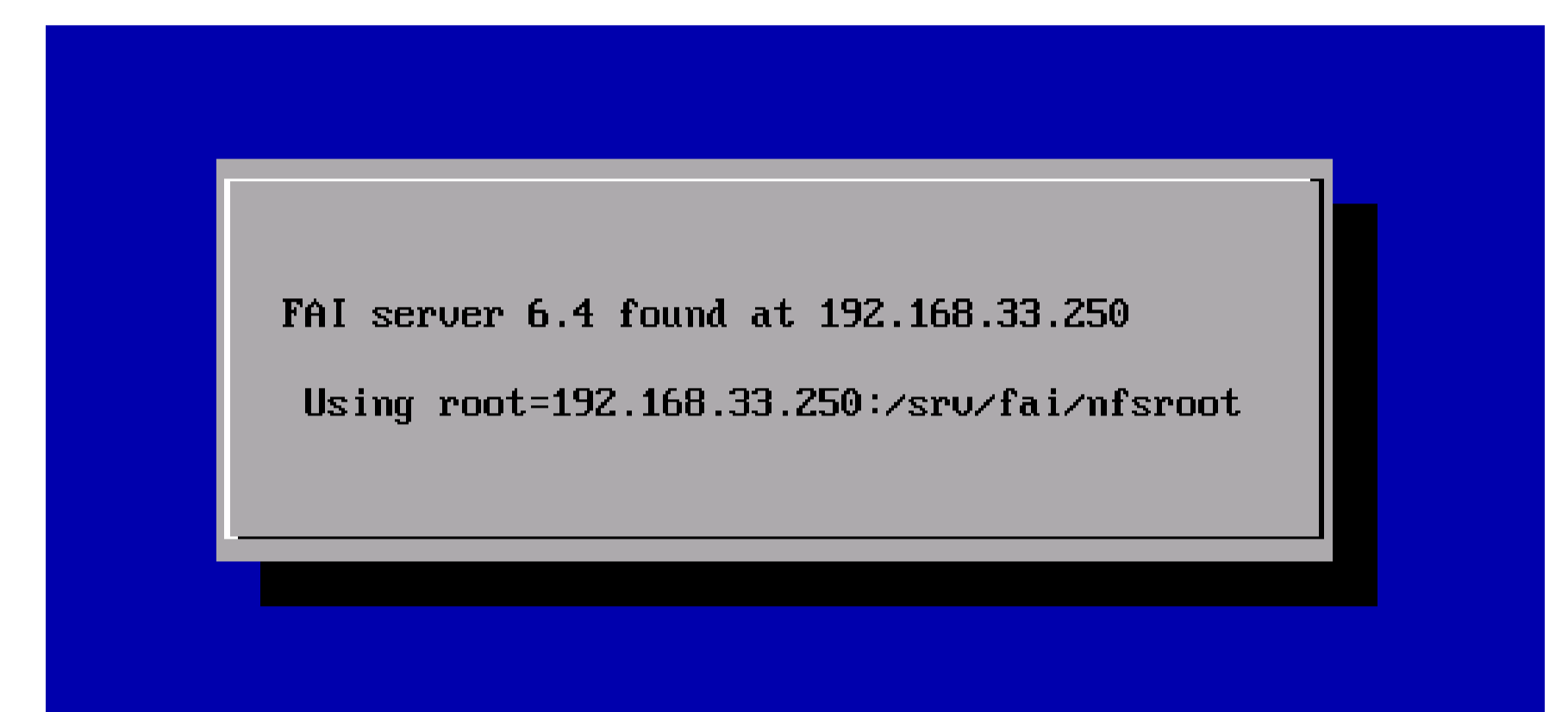
Availability

- Homepage: <https://fai-project.org>
- Open source under GPL license
- Detailed documentation, mailing lists, IRC channel
- Official Debian packages, ISO images of demo CD
- Commercial support available

FAI at work

hostname	confdir	defclass	partition	extrabase	repository	instsoft	configure	tests	save-log	faild	reboot
demohost	✓	✓	✓	✓	✓	✗	✗	✗	✓	✓	→
atom03	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	→
atom02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	→
atom01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	→
gnomehost	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	→

The FAI monitor daemon



Autodiscover of the FAI server

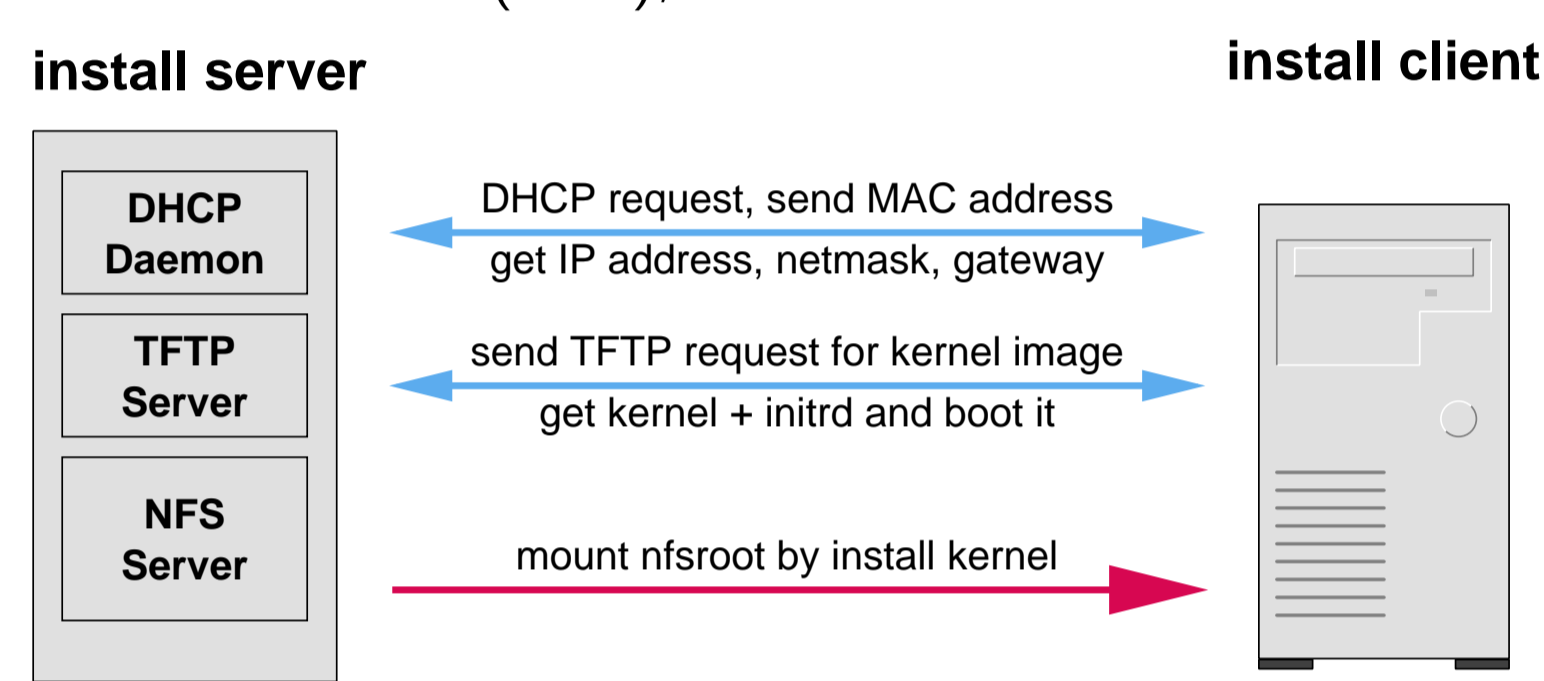


Selecting a FAI profile from the menu

The three steps of FAI

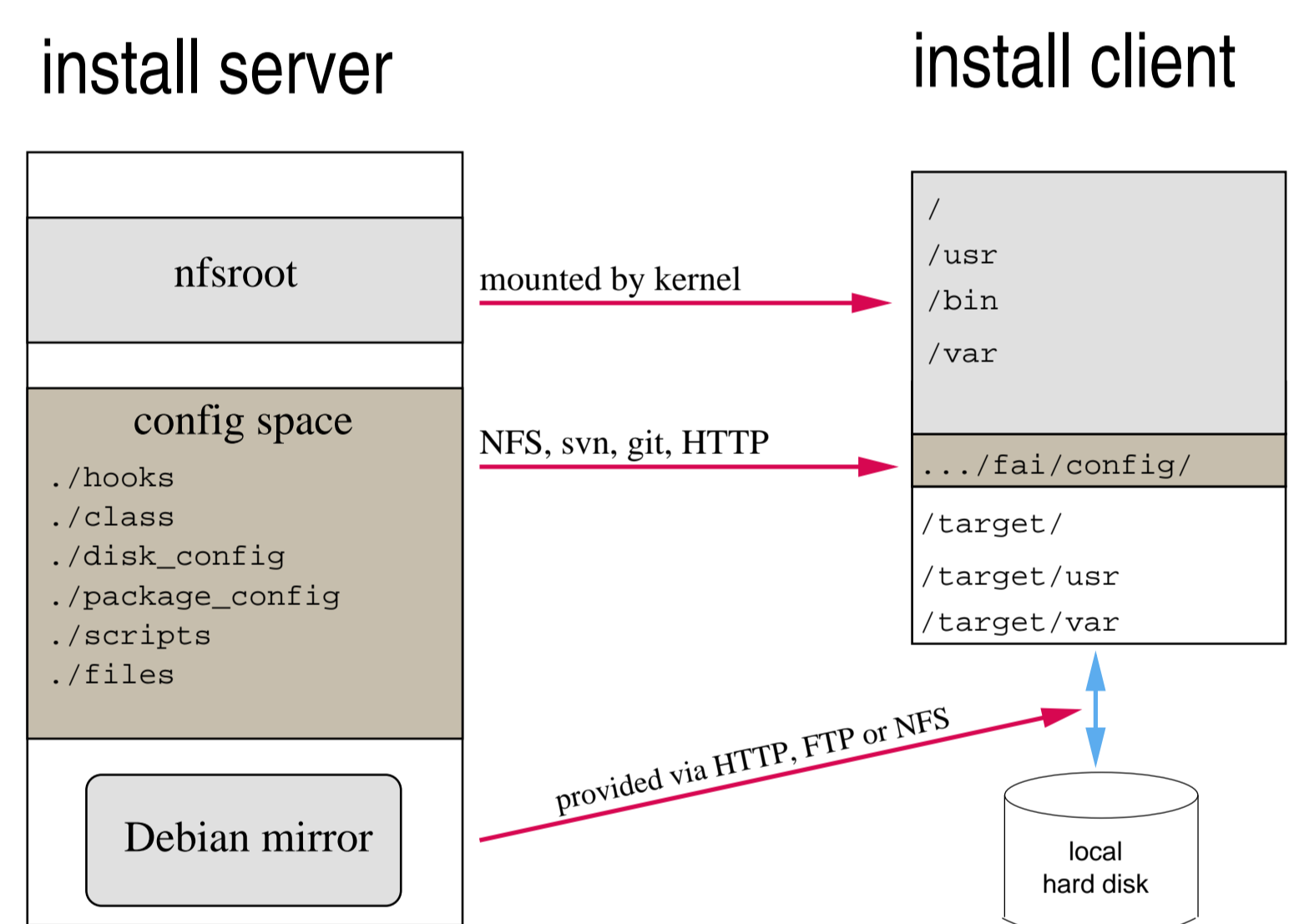
1 - Boot host

- Boot via network card (PXE), USB drive or CD-ROM



- Now a complete Linux OS is running without using local hard disks

2 - Get configuration data



3 - Run installation

- partition local hard disks and create filesystems
- install software using apt
- configure OS and additional software
- save log files to install server, then reboot new system

FAI

Plan your installation,
and FAI installs your plan.



FAI users

- Anonymous, financial industry, 32.000 hosts
- LVM insurance, 10.000 hosts
- City of Munich, 16.000
- StayFriends, 700+ hosts
- Albert Einstein Institute, 3000+ hosts
- Zivit, 260 hosts on two IBM z10 EC mainframes
- Archive.org, 1200 bare metal and 800 KVM hosts
- XING AG, 300-400 hosts
- Opera Software, ~300 hosts
- Stanford University, 450 hosts
- MIT Computer science research lab, 200 hosts
- The Welcome Trust Sanger Institute, 540 hosts
- Mobile.de, ~600 hosts
- Thomas Krenn AG, 500 per month
- Electricité de France (EDF), 1500 hosts
- ETH Zurich, systems group, ~300 hosts
- Dropbox, 300 hosts
- For more see <https://fai-project.org/reports/>

Examples of installation times

CPU + RAM	software	time
E5-2690v2, 3.0 GHz, SSD	5.4 GB	7 min
i7-3770T, 2.50 GHz, SSD	6.0 GB	9 min
Core i7, 3.2 GHz	4.3 GB	7 min
Core i7, 3.2 GHz	471 MB	77 s
Disk Image, no Xorg	1.1 GB	1:30 min
Disk Image, Xfce	3.7 GB	4:09 min
Disk Image, GNOME	4.4 GB	5:04 min
Live ISO, no desktop	1.3 GB	2:30 min
Live ISO, Xfce	3.8 GB	5:40 min
Live ISO, GNOME	4.6 GB	6:45 min

FAI references

