



Berner Fachhochschule
Haute école spécialisée bernoise
Bern University of Applied Sciences

BFH Linux Desktop

Linux System Administration Meeting #4

Thursday, 13th November 2014 16:00 - 18:00

BFH - Room HG 4.08 (Quellgasse, Biel)

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IT System Engineer, Team Infrastructure Services

Nationaler Zukunftstag



Tag des Lichts



Overview

Part 1 - Introduction

- ▶ Current Status
- ▶ Team
- ▶ Terminology and Components
- ▶ Projects
- ▶ Roadmap

Break

Part 2 - Discussion

- ▶ Future Directions
- ▶ Questions and Answers
- ▶ ...

Aperitif

Part 1 – Introductions

Current Status

2014-11-13

- ▶ ISO Hybrid Images (DVD/USB Stick): done
- ▶ Virtual Image (OVA): done
- ▶ Network Boot (PXE): done
- ▶ Terminal Server (linux-desktop.bfh.ch): done

Team



Terminology

System Types

- ▶ Installer System
- ▶ Live System
- ▶ Live-Installer System (live-installer) vs. Combined Images

System Images

- ▶ ISO and ISO Hybrid
- ▶ USB Images (with and without Persistence)
- ▶ Netboot Tarballs (PXE)
- ▶ Virtual Images (OVA)

System vs Service

Components

Build Time

- ▶ live-build
- ▶ live-images
- ▶ live-manual

Run Time

- ▶ live-boot
- ▶ live-config
- ▶ live-tools

Installer

- ▶ debian-installer
- ▶ live-installer
- ▶ debian-installer-launcher

Projects (1/3)

Debian (debian.org)

- ▶ The **Universal** Operating System, since 1993
- ▶ Project with ~1'250 Developers/Maintainers
- ▶ ~50'000 Packages per Release

Debian Live (live.debian.net)

- ▶ Official Debian Subproject, since 2006
- ▶ Handful of People
- ▶ Defacto Industry Standard

Projects (2/3)

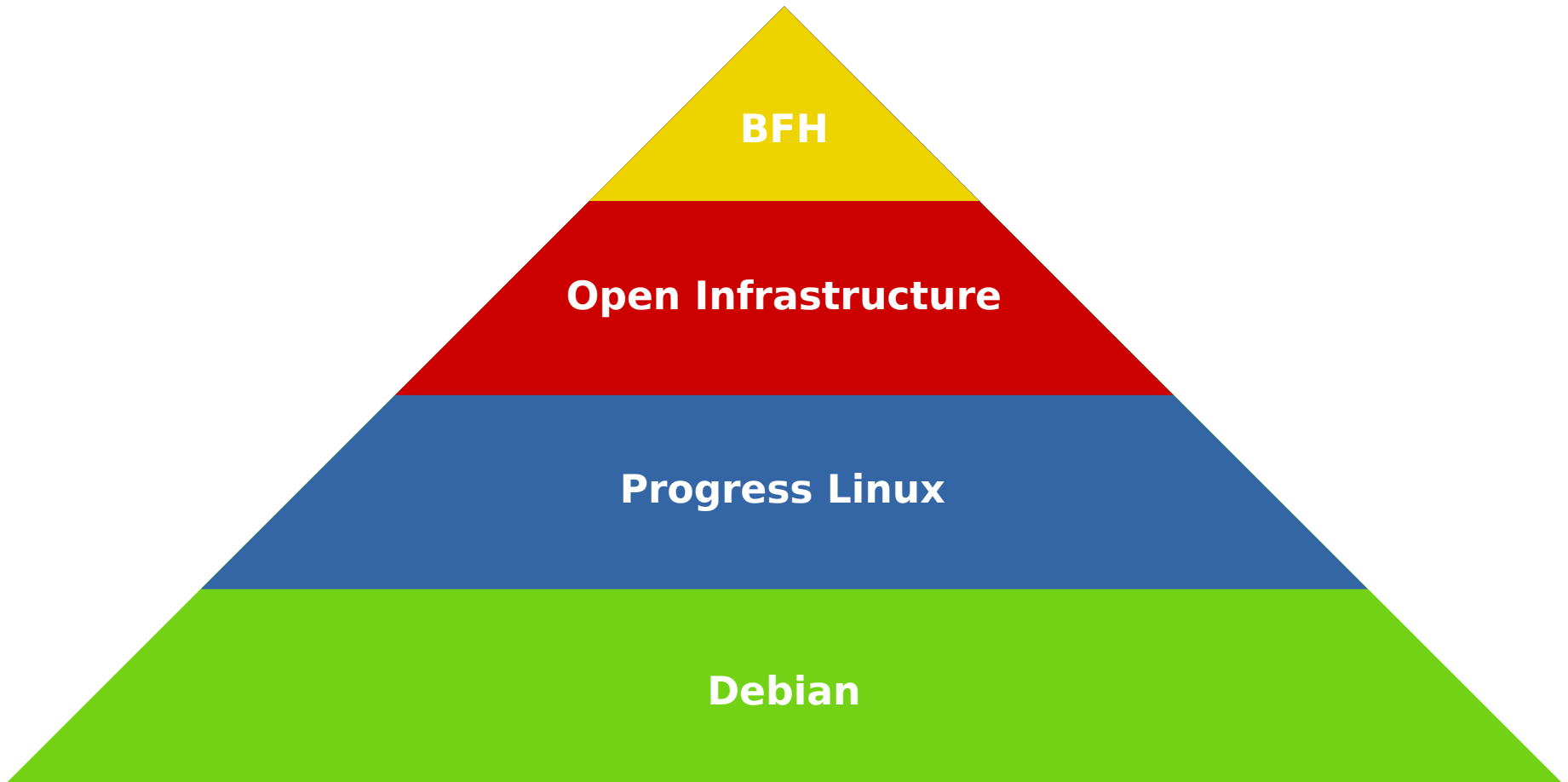
Progress Linux (progress-linux.org)

- ▶ Debian Derivative Project focused on System Integration, since 2010
- ▶ Not a Debian Fork (like e.g. Ubuntu) but a Repository on top of Debian (Debian+ Model)
- ▶ Handful of People
- ▶ 100 to 200 Packages per Release
- ▶ Aims to be **generic**
- ▶ Fixing paper cut bugs, optimizes for the majority/modern systems, integrating backports properly

Open Infrastructure (open-infrastructure.org)

- ▶ Infrastructure Project, since 2014
- ▶ Handful of People
- ▶ Specific ready-made out-of-the-box Solutions (e.g. GNOME Desktop, LXC Server, ...)

Standing on the shoulders of giants



Projects (3/3)

Management Summary

- ▶ Debian: Original Equipment Manufacturer (OEM)
- ▶ Progress Linux: Value-Added Reseller (VAR)
- ▶ Open Infrastructure: Solution Provider
- ▶ BFH: Local Instance

Techie Summary

- ▶ Debian: The best a Geek can get
- ▶ Progress Linux: PPA with bugfixes and missing packages for Debian
- ▶ Open Infrastructure: Upstream Code with missing glue for System Administration
- ▶ BFH: Branding

Common Principles

- ▶ no NIH Syndrom; DRY instead of WET; don't believe in Competitive Advantage wrt/ Infrastructure

Roadmap (1/2)

2014-11-13

- ▶ Alpha Status: Basic Functionality
- ▶ Basic Packages and Basic Preconfiguration only

2014-12-01

- ▶ Beta Status: Ready for General Use and Available as a Service
- ▶ Missing special needs for department/group specific needs

~2015-02-14

- ▶ Release
- ▶ Replacing old PXE, defaulting to new Linux Desktop

2015-08-01

- ▶ Shutdown old PXE

Roadmap (2/2)

Freely after Aaron Sorkin:

It's not the greatest thing in the world

Roadmap (2/2)

Freely after Aaron Sorkin:

**It's not the greatest thing in the world
but it could be**

Freely after Aaron Sorkin:

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 **<https://linux.bfh.ch/desktop>**

Future Events

Rerun: Introduction to Git

▶ Thursday, 11th December 2014

▶ 16:30 - 17:30

Tentative: Advanced Git Usage and Q&A

▶ Thursday, 18th December 2014

▶ 17:00 - 18:00

Linux Jeopardy

▶ February 2015

Break

Part 2 – Discussion

Bug Reporting

- ▶ our OTRS is not suitable for Project Management
- ▶ we're setting up an Request Tracker instance anyway for TI
- ▶ in the meantime, use bfh-linux-users@lists.bfh.ch and [#bfh-linux-users](https://twitter.com/bfh-linux-users)

Crypto Bootstrap

- ▶ Currently LDAP Password hardcoded in images, therefore Images behind LDAP Auth
- ▶ Future: Generic Images with Application that bootstraps Crypto

Package Selection

Removing packages

- ▶ No Perl, no Mono, no Java in Base System
- ▶ Streamline everything on Python
- ▶ Kernel Binary Module Packages rather than dkms

Adding packages

- ▶ libdvdcss, mplayer-codecs, microsoft-core-fonts, virtualbox-extension-pack
- ▶ Eclipse, NetBeans
- ▶ Adobe Flash Player, Citrix Receiver, Skype, TeamViewer

Meta Distribution

Meta Packages

- ▶ Allow user to create their own package sets via meta-packages

Partial SquashFS

- ▶ Create meta-packages based overlays using live-boot's partial squashfs support (or nfs mounts for PXE)
- ▶ Allow users to enable overlays at runtime

Web Builder

- ▶ Allow people to build custom images based on meta-packages/partial squashfs images

Thank You for Your Attention.

♥ Source Code is freely available

```
git clone git://git.bfh.ch/git/staff/bad9/other/talks.git
```

Further Ressources and Contact Information (1/2)

BFH

- ▶ Homepage: <https://linux.bfh.ch>
- ▶ Mailing List: bfh-linux-users@lists.bfh.ch
- ▶ IRC: [#bfh-linux-users](irc://irc.oftc.net)

Open Infrastructure

- ▶ Homepage: <https://open-infrastructure.net>
- ▶ Mailing List: project@lists.open-infrastructure.net
- ▶ IRC: [#open-infrastructure](irc://irc.oftc.net)

Progress Linux

- ▶ Homepage: <https://progress-linux.org>
- ▶ Mailing List: project@lists.progress-linux.org
- ▶ IRC: [#progress-linux](irc://irc.oftc.net)

Further Ressources and Contact Information (2/2)

Debian

- ▶ Homepage: <http://debian.org> and <http://live.debian.net>
- ▶ Mailing List: debian-user@lists.debian.org, debian-user-german@lists.debian.org, and debian-live@lists.debian.org
- ▶ IRC: [#debian](irc://irc.oftc.net), [#debian.de](irc://irc.oftc.net), and [#debian-live](irc://irc.oftc.net)

Debian Ressources

- ▶ <http://debian-handbook.info> (English and French book, free)
- ▶ <http://debiananwenderhandbuch.de> (German book, free)
- ▶ Debian 7: System Administration Best Practices, Rich Pinkall Pollei, Packt Publishing 2013 (English ebook, 20 USD)
- ▶ Debian GNU/Linux, Heike Jurzik, 5. Auflage, Galileo Press 2013 (German book, 60 CHF)

- ▶ <http://debian.org/doc/>, Debian Documentation
- ▶ <http://live.debian.net/manual>, Debian Live Documentation
- ▶ <http://planet.debian.org>, Debian Blog Aggregator