

Custom Debian distributions and Debian derivatives



Aigars Mahinovs
Debconf 5 – Debian Day

Debian

Definitions

- Distribution – a set of OS kernel and supporting software in a defined format with the possibility of some integration by adjusting configuration defaults. Also some services are part of the package.
- Derived distribution – a distribution that was made to be somehow different from the base distribution. Usually services must be remade.
- Custom Distribution – a tool kit that allows creating derived distribution within the base distribution



Debian

Family trees

- RedHat (~50)
 - Mandrake
 - SuSe
 - Fedora
- Debian (~150)
 - Knoppix
 - Skolelinux
 - Ubuntu
- Slackware (~30)
- Gentoo, LFS, independent distributions



Debian

Why to derive from Debian?

- Strict policy and packaging standards
- Gigantic number of packaged programs
- Small and simple base system
- Flexible installation infrastructure
- Long release cycle ensuring a stable base
- Non-commercial nature (support, not a concurrent, freelancing experts)



Debian

Skolelinux

Knoppix



- Klaus Knopper
- Live CD
- Spawned hundreds of derivatives including those based on other distributions and operating systems (Morphix, Clusterix, Cute, DeadCD,)
- Best way to try out Linux without any installation
- Best system recovery tools
- Stable environment everywhere you go

Debian

Skolelinux

Ubuntu



- Mark Shuttleworth
- “humanity to others”
- Employs 40+ Debian Developers to create a distribution that would be usable by the common man
- Releases every 6 months
- Developed many added features that afterwards are integrated back into Debian
- Best first distribution

Debian

Special Area distributions

- Vienux
- LinEx
- Arabix
- Catix
- LIIS Linux
-

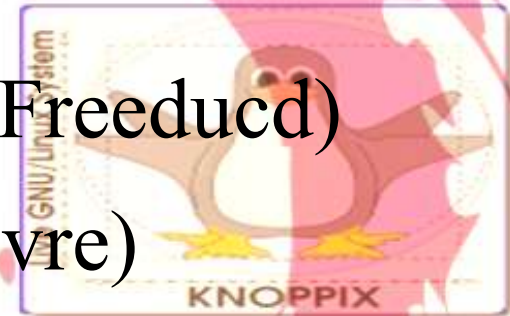


- Hundreds of distributions, usually totally unknown outside the specific area.

Debian

Special purpose distributions

- Educational distributions (Skolelinux, Freeduod)
- Scientific distributions (Bionix, GEOlivre)
- Hobby distributions (AGNULA, HAMix)
- High security distributions (Adamantix, LAS)
- Server oriented (Clusterix, Defender, TupiServer)
-
- For any purpose a special purpose distribution can be made.



Debian

Comercial base derivatives

- Ubuntu
- Progeny
- Amber Linux
- ...
- The aim is not to make the best distribution, but to make a set of a distribution and personnel that will be able to adjust this distribution to any needed purposes.



Debian

CDD framework

- Few simple files
- No derivation from Debian – less work
- Ability to adjust all needed features:
 - packages selection
 - configuration of packages
 - file overrides
 - recompiled packages (with patches)
 - added new packages



Debian

Future of derivatives

- Minimal derivation:
 - less maintenance work
 - more comparability gains
 - no retraining
 - ability to become a base for others
- More contribution back to base
- Easier creation, maintenance and installation
- A purpose -> a tool.



Debian

Summary

- There are hundreds of Debian Derivatives
- Every one of them is customised for a purpose
- Usually they are the best tools available for this purpose
- Every Debian Derivative bases on strengths of Debian and adds its own special benefits
- Debian Derivatives will increasingly become CDDs and will concentrate on their strengths becoming better and easier
- Soon even you will be able to make a CDD!



Debian