Custom Debian distributions and Debian derivatives

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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
Family trees

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

- Klauss 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
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
Special Area distributions

- Vienux
- LinEx
- Arabix
- Catix
- LIIS Linux
- ...
- Hundreds of distributions, usually totally unknown outside the specific area.
Special purpose distributions

- Educational distributions (Skolelinux, Freeducd)
- 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.
Comercial base derivatives

- Ubuntu
- Progeny
- Amber Linux
- ...

- The aim in not to make the best distribution, but to make a set of a distribution an personell that will be able to adjust this distribution to any neede purposes.
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
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 instalation

- A purpose -> a tool.
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!