Why Debian? Not Just Me, But You Too!
from personal use to powering global infrastructure

Dr. Senthil Kumaran

Debian Maintainer

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Agenda

- What is Debian?
- How I started using Debian?
- Debian Philosophy a.k.a DFSG
- Debian Facts
- What Makes Debian Special?
- Supported Architectures?
- Debian Statistics

What is Debian?

- A free and open-source operating system.
- An universal Operating System project
- Most popular is the GNU/Linux Debian variant
- First announced in 1993 by Ian Murdock (31 years ago)
- Built by a global community of volunteers
- Known for its stability, security, and versatility

Kernel Types

- Monolithic: Linux (current), kFreeBSD (until July 2023)
- Micro: Hurd (unofficial)

How I started using Debian?

- Proud Debian user for the past 22 years
- Woody! (19 July 2002)
- My first desktop - HCL Ezeebee (AMD Athlon XP 2500+, 1.8 Ghz, 128 MB DDR RAM, 40 GB HDD)

Debian Social Contract

1. Debian will remain 100% free
2. We will give back to the free software community
3. We will not hide problems
4. Our priorities are our users and free software
5. Works that do not meet our free software standards - contrib, non-free

Debian Free Software Guidelines

1. Free Redistribution
2. Source code availability and inclusion
3. Modifications are allowed
4. Eliminates any group / intent / user discrimination
5. Distribution of License without additional license
6. License Must Not Be Specific to Debian
7. License Must Not Contaminate Other Software

Debian Facts?

- Not controlled or owned by a company
- Biggest and complete community-driven project
- Ensures free software strictly
- Universal - runs on many platforms
- Parent to many operating systems
- Has a repository of 64419 packages as of Bookworm (Debian 12)

What makes Debian Special? - I

Low hardware requirements

- No Desktop - 256 - 512 MB RAM, IA-32 (x86), 4 GB HDD
- Desktop - 1 - 2 GB RAM, IA-32 1 GHz, 10GB HDD
- Hence don't throw away those old machines!

What makes Debian Special? - II

Best in class software Management

- Manage packages with ease using APT
- Automatic dependency resolution right from the beginning
- Ensures stability and consistency of system
- Easy repository construction both local and remote
- Hence loved by server admins!

What makes Debian Special? - III

- Utility and usability
- Quality of implementation
- Feature set and Selection of Software (64419 packages)
- Portability and Hardware Support
- Security and Reliability
- Scalability and Performance

Supported Architectures – Official I

1. amd64: x86-64
2. arm64: ARMv8-A
3. armel: Little Endian
4. armhf: ARM hard-float (ARMv7)
5. i386: IA-32
6. powerpc: PowerPC
7. ppc64: PowerPC64
8. ppc64el: Little-endian PowerPC64
9. riscv64: RISC-V (64-bit little endian)
10. s390x: System Z
11. mipsel: Little-endian 32-bit MIPS
12. mips64el: Little-endian 64-bit MIPS

Supported Architectures - UnOfficial I

1. alpha: DEC Alpha
2. hppa: HP PA-RISC
3. m68k: Motorola 68k
4. sh4: Hitachi SuperH
5. sparc64: Sun SPARC
6. x32: x32 ABI
7. hurd-i386: GNU Hurd kernel on IA-32
8. hurd-amd64: GNU Hurd kernel on x86_64

Debian Statistics

- 1030 official Debian contributors
- These developers are spread across 60+ countries
- As per w3tech's statistics, 21.8% of websites use Debian (Ubuntu combined)
- There are almost 130+ derivatives of Debian operating system, which includes Ubuntu, SteamOS, etc.
- Six out of the top 10 GNU/Linux distributions are based on Debian where Linux Mint ranks second, and Debian in 5th place - distrowatch.com
- In 31 years there are total of 12 stable (major version) Debian releases

References

- https://wiki.debian.org/Statistics
- The Debian Project presentation by Victor Nitu
- Why Debian? talk by Manoj Srivastava
- Wikipedia Debian page
- Debian project's wiki pages
- http://w3techs.com/

Thank You

Any questions?
sk@stylesen.org