

# systemd myths debunked!

Michael Stapelberg <stapelberg@debian.  
org>

DebConf 2013



# My backstory

- read Lennart's initial blog post; skeptical
- tested systemd over a year after its release
- amazed by the new commands & features
- contributed service files to packages
- overall progress too slow, let's fix that!



# What I work on in pkg-systemd

- bugreports, merging contributions
- dh-systemd and init-system-helpers
- simple and more complex service files
- “community outreach” (survey, blog posts, talks at DebConf, real-life discussions, ...)



# Motivation of this talk

- we don't discuss on debian-devel,  
but we want to communicate with you!
- address the top concerns (survey)
- encourage face-to-face discussion



# The Debian Systemd Survey

- 573 participants, 45.7% DD/DM/maintainers
- default? 43% yes, 32% no, 23% dunno
- most importantly: free-text top concerns



# Agenda

1. complexity
2. portability
3. debugging
4. your questions



# A few quick clarifications

- systemd configs are not binary
- you can install systemd alongside sysvinit
- systemd has plenty of documentation



# systemd's dependencies

- list of all dependencies
- dbus vs. dbus wire format
- widely used libraries (dbus, selinux, libcap)
  - mostly memory mapped anyway
  - many installed already





# systemd bloated?

- yes, it uses more memory, but worth it
- measurably faster than sysvinit
- we think less maintenance cost eventually



# systemd too complex

- many features are optional
- complexity centralized, not added
- new things seem complex at first



# systemd is not portable

- systemd is a very linux-specific init system,  
does not run on kFreeBSD or HURD
- not an arbitrary decision, needs cgroups, ...
- portable code blows up the test matrix



# not portable? not a problem.

- systemd on Linux, sysvinit elsewhere
- mid-term increased maintenance effort
- long-term situation like !linux-bugs today,  
handled “best-effort”



# not portable? not a problem.

- Kernels are different and that's good!
- Let's make Debian a good Linux distribution  
and a good kFreeBSD/HURD/... distribution\*



# Debugging

- most issues: `systemctl status` will tell
- boot with `systemd.log_level=debug`
- journal: log messages including early boot
- timeouts (90s); get a rescue shell
- looking at the C code is **rarely** required



# Debugging

- boot with `systemd.confirm_spawn=1`
- `systemctl enable debug-shell.service` (204)
- `systemd` breaks cycles automatically
- boot with `systemd.unit=rescue.target`
- [freedesktop.org/wiki/Software/systemd/Debugging](https://freedesktop.org/wiki/Software/systemd/Debugging)



# Why systemd?

- reliable and clean service management
- simple service files (= “init scripts”)
- better hotplug (e.g. on laptops)
- unified init system across Linux distros





# Thanks!

- Please talk to us if you have questions
- #debian-systemd on irc.debian.org
- [pkg-systemd-maintainers@lists.alioth.debian.org](mailto:pkg-systemd-maintainers@lists.alioth.debian.org)
- <http://people.debian.org/~stapelberg/>

