

Introducing FreeBSD in new environment

The good, the bad and the ugly

Baptiste Daroussin
bapt@FreeBSD.org



BSDCan 2018
Ottawa
June 9th, 2018

Disclaimer: subjective french point of view



Who am I?

- ▶ FreeBSD user since 1998 (thanks to FreeBSD on the desktop!)
- ▶ FreeBSD committer since 2010
- ▶ portmgr since 2011
- ▶ core since 2014
- ▶ Contributing mostly in my free time

Who am I?

- ▶ FreeBSD user since 1998 (thanks to FreeBSD on the desktop!)
- ▶ FreeBSD committer since 2010
- ▶ portmgr since 2011
- ▶ core since 2014
- ▶ Contributing mostly in my free time
- ▶ No more a student since 2003
- ▶ Working mostly in France and Africa
- ▶ Only one job really officially FreeBSD related

Targets

Targets

- ▶ Old school sysadmin usage

Targets

- ▶ Old school sysadmin usage
- ▶ Appliances usage

Targets

- ▶ Old school sysadmin usage
- ▶ Appliances usage
- ▶ Modern devops usage

Targets

- ▶ Old school sysadmin usage
- ▶ Appliances usage
- ▶ Modern devops usage
- ▶ Diskless

Audience

Audience

- ▶ sysadmins:

Audience

- ▶ sysadmins:
 - ▶ before: "Who is the vendor?"
 - ▶ now: "Never heard of that Linux distro?"

Audience

- ▶ sysadmins:
 - ▶ before: "Who is the vendor?"
 - ▶ now: "Never heard of that Linux distro?"
- ▶ developers

Audience

- ▶ sysadmins:
 - ▶ before: "Who is the vendor?"
 - ▶ now: "Never heard of that Linux distro?"
- ▶ developers
- ▶ PCI DSS auditors

Myths

Myths

- ▶ BSD is for real hardcore sysadmins

Myths

- ▶ BSD is for real hardcore sysadmins
- ▶ BSD is hard to use

Myths

- ▶ BSD is for real hardcore sysadmins
- ▶ BSD is hard to use
- ▶ BSD is a source only OS

Myths

- ▶ BSD is for real hardcore sysadmins
- ▶ BSD is hard to use
- ▶ BSD is a source only OS
- ▶ one true BSD

Myths

- ▶ BSD is for real hardcore sysadmins
- ▶ BSD is hard to use
- ▶ BSD is a source only OS
- ▶ one true BSD
- ▶ There must be a reason for \$feature not exist

Methodology

Methodology

- ▶ Never impose

Methodology

- ▶ Never impose
- ▶ Do not convert

Methodology

- ▶ Never impose
- ▶ Do not convert
- ▶ Be accessible

Methodology

- ▶ Never impose
- ▶ Do not convert
- ▶ Be accessible
- ▶ Be reactive

Always a FreeBSD machine somewhere

Always a FreeBSD machine somewhere

- ▶ ~~NetASQ~~ Stormshield

Always a FreeBSD machine somewhere

- ▶ ~~NetASQ~~ Stormshield
- ▶ pfSense

Always a FreeBSD machine somewhere

- ▶ ~~NetASQ~~ Stormshield
- ▶ pfSense
- ▶ FreeNAS

Always a FreeBSD machine somewhere

- ▶ ~~NetASQ~~ Stormshield
- ▶ pfSense
- ▶ FreeNAS
- ▶ Nixsun

Always a FreeBSD machine somewhere

- ▶ ~~NetASQ~~ Stormshield
- ▶ pfSense
- ▶ FreeNAS
- ▶ Nixsun
- ▶ Juniper

Always a FreeBSD machine somewhere

- ▶ ~~NetASQ~~ Stormshield
- ▶ pfSense
- ▶ FreeNAS
- ▶ Nixsun
- ▶ Juniper
- ▶ Isilon

Users: wants to feel at home

Users: wants to feel at home

- ▶ First: mangle

Users: wants to feel at home

- ▶ First: mangle
 - ▶ how do I install logrotate?
 - ▶ how do I install rsyslog?

Users: wants to feel at home

- ▶ First: mangle
 - ▶ how do I install logrotate?
 - ▶ how do I install rsyslog?
- ▶ Second: learn

Users: wants to feel at home

- ▶ First: mangle
 - ▶ how do I install logrotate?
 - ▶ how do I install rsyslog?
- ▶ Second: learn
 - ▶ oh, newsyslog is nice
 - ▶ hey your syslog does that?

Package management

Package management

- ▶ long ago:
 - ▶ the good: easily customisable

Package management

- ▶ long ago:
 - ▶ the good: easily customisable
 - ▶ the bad: hard to reproduce a setup
 - ▶ the bad: hard to maintain a repo

Package management

- ▶ long ago:
 - ▶ the good: easily customisable
 - ▶ the bad: hard to reproduce a setup
 - ▶ the bad: hard to maintain a repo
 - ▶ the ugly: hard to automate
 - ▶ the ugly: binary maintenance close to impossible

Package management

- ▶ long ago:
 - ▶ the good: easily customisable
 - ▶ the bad: hard to reproduce a setup
 - ▶ the bad: hard to maintain a repo
 - ▶ the ugly: hard to automate
 - ▶ the ugly: binary maintenance close to impossible
- ▶ nowadays:
 - ▶ the good: easy to create/maintain a repo
 - ▶ the good: simple and straight forward command line interface
 - ▶ the good: easy
 - ▶ the good: up to date packages



Package management

- ▶ long ago:
 - ▶ the good: easily customisable
 - ▶ the bad: hard to reproduce a setup
 - ▶ the bad: hard to maintain a repo
 - ▶ the ugly: hard to automate
 - ▶ the ugly: binary maintenance close to impossible
- ▶ nowadays:
 - ▶ the good: easy to create/maintain a repo
 - ▶ the good: simple and straight forward command line interface
 - ▶ the good: easy
 - ▶ the good: up to date packages
 - ▶ the bad: no LTS repo
 - ▶ the bad: multi repository support



Automation

- ▶ The good:
 - ▶ rc.conf.d
 - ▶ *.d

Automation

- ▶ The good:
 - ▶ rc.conf.d
 - ▶ *.d
- ▶ The badgood:
 - ▶ crontabs
 - ▶ syslogd

Automation

- ▶ The good:
 - ▶ rc.conf.d
 - ▶ *.d
- ▶ The badgood:
 - ▶ crontabs
 - ▶ syslogd
- ▶ The bad:
 - ▶ jail.conf
 - ▶ inetd.conf
 - ▶ blacklistd.conf
 - ▶ everything not allowing includes

Tooling

Tooling

- ▶ The good:
 - ▶ admin utilities: *util, *ctl, *control
 - ▶ statistical utilities: systat, top -m io
 - ▶ man pages
 - ▶ gpart!

Tooling

- ▶ The good:
 - ▶ admin utilities: *util, *ctl, *control
 - ▶ statistical utilities: systat, top -m io
 - ▶ man pages
 - ▶ gpart!
- ▶ The bad:
 - ▶ 3 firewalls
 - ▶ sendmail
 - ▶ vi
 - ▶ fdisk/bsdlabel
 - ▶ command options strictness (getopt)
 - ▶ lack of -help

Tooling

- ▶ The good:
 - ▶ admin utilities: *util, *ctl, *control
 - ▶ statistical utilities: systat, top -m io
 - ▶ man pages
 - ▶ gpart!
- ▶ The bad:
 - ▶ 3 firewalls
 - ▶ sendmail
 - ▶ vi
 - ▶ fdisk/bsdlabel
 - ▶ command options strictness (getopt)
 - ▶ lack of -help
- ▶ The ugly:
 - ▶ CSH (as default shell)
 - ▶ no good default shell in base



Deploying

Deploying

- ▶ The good:
 - ▶ `freebsd-update` upgrades

Deploying

- ▶ The good:
 - ▶ freebsd-update upgrades
- ▶ The bad:
 - ▶ Lack of out of box "cloud" image
 - ▶ local freebsd-update mirror

Deploying

- ▶ The good:
 - ▶ freebsd-update upgrades
- ▶ The bad:
 - ▶ Lack of out of box "cloud" image
 - ▶ local freebsd-update mirror
- ▶ The ugly:
 - ▶ PXE booting (seamless installation)
 - ▶ PXE booting (ramdisk/diskless)
 - ▶ local freebsd-update server

Someone's else computer/Cloud

Someone's else computer/Cloud

- ▶ The good:
 - ▶ Xen dom0 support

Someone's else computer/Cloud

- ▶ The good:
 - ▶ Xen dom0 support
- ▶ The bad:
 - ▶ bhyve frontend
 - ▶ bhyve lack of features (live migration, passthrough)
 - ▶ lack of dynamic CPU

Storage

Storage

- ▶ The good:
 - ▶ ZFS
 - ▶ ctl
 - ▶ utilities (geom, sesutil, mfiutil)

Storage

- ▶ The good:
 - ▶ ZFS
 - ▶ ctl
 - ▶ utilities (geom, sesutil, mfiutil)
- ▶ The ugly:
 - ▶ NFS performances
 - ▶ NFS v4+ compatibilities with Linux clients

Hacking

Hacking

- ▶ The good:
 - ▶ multiple version of the toolchains available
 - ▶ dtrace
 - ▶ pmcstat

Hacking

- ▶ The good:
 - ▶ multiple version of the toolchains available
 - ▶ dtrace
 - ▶ pmcstat
- ▶ The bad:
 - ▶ pmcstat UI
 - ▶ lack of sanitizers
 - ▶ .4th
 - ▶ gdb 6.6

Community feedback

Community feedback

- ▶ The good:
 - ▶ not worse than elsewhere
 - ▶ documentations/handbook

Community feedback

- ▶ The good:
 - ▶ not worse than elsewhere
 - ▶ documentations/handbook
- ▶ The bad:
 - ▶ mailing list is the best way to catch attention
 - ▶ localised documentation (fr_FR.**ISO8859-1** for example)

Community feedback

- ▶ The good:
 - ▶ not worse than elsewhere
 - ▶ documentations/handbook
- ▶ The bad:
 - ▶ mailing list is the best way to catch attention
 - ▶ localised documentation (fr_FR.**ISO8859-1** for example)
- ▶ The ugly:
 - ▶ bug report without a proxy

Contributing

Contributing

- ▶ The good:
 - ▶ not worse than other OS

Contributing

- ▶ The good:
 - ▶ not worse than other OS
- ▶ The bad:
 - ▶ subversion
 - ▶ lack of documentation

Contributing

- ▶ The good:
 - ▶ not worse than other OS
- ▶ The bad:
 - ▶ subversion
 - ▶ lack of documentation
- ▶ The ugly:
 - ▶ there is no official process

Desktops/laptops

Desktops/laptops

- ▶ The good:
 - ▶ usable
 - ▶ sound

Desktops/laptops

- ▶ The good:
 - ▶ usable
 - ▶ sound
- ▶ The bad:
 - ▶ Wireless
 - ▶ GPU drivers
 - ▶ sound support (upstream)

Desktops/laptops

- ▶ The good:
 - ▶ usable
 - ▶ sound
- ▶ The bad:
 - ▶ Wireless
 - ▶ GPU drivers
 - ▶ sound support (upstream)

Summary

Summary

- ▶ Good: Overall feeling of a well thought OS

Summary

- ▶ Good: Overall feeling of a well thought OS
- ▶ Bad: If you don't know someone, hard to get in (but same for other projects)

Summary

- ▶ Good: Overall feeling of a well thought OS
- ▶ Bad: If you don't know someone, hard to get in (but same for other projects)
- ▶ Bad: regressions on stable!

Summary

- ▶ Good: Overall feeling of a well thought OS
- ▶ Bad: If you don't know someone, hard to get in (but same for other projects)
- ▶ Bad: regressions on stable!
- ▶ Bad: lack of ERRATA: most people use releases!

Summary

- ▶ Good: Overall feeling of a well thought OS
- ▶ Bad: If you don't know someone, hard to get in (but same for other projects)
- ▶ Bad: regressions on stable!
- ▶ Bad: lack of ERRATA: most people use releases!
- ▶ Bad: We are not cool anymore, where are those wonderful swags?

Summary

- ▶ Good: Overall feeling of a well thought OS
- ▶ Bad: If you don't know someone, hard to get in (but same for other projects)
- ▶ Bad: regressions on stable!
- ▶ Bad: lack of ERRATA: most people use releases!
- ▶ Bad: We are not cool anymore, where are those wonderful swags?
- ▶ Ugly: CSH

Summary

- ▶ Good: Overall feeling of a well thought OS
- ▶ Bad: If you don't know someone, hard to get in (but same for other projects)
- ▶ Bad: regressions on stable!
- ▶ Bad: lack of ERRATA: most people use releases!
- ▶ Bad: We are not cool anymore, where are those wonderful swags?
- ▶ Ugly: CSH

Questions?

Thanks