What's new in FreeBSD 11

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Architectures

- End of IA64
- Add arm64
- Add Risc-V
- Improved ARM support: dtrace, plenty of new drivers
- CloudABI



toolchain

- clang 3.8.0
- IIdb activated by default for amd64, arm64
- all but ld(1) and objdump(1) binutils components replaced by Elftoolchain
- external toolchain



Network

- IPX removed
- AppleTalk removed
- UDP-lite added
- New version of netmap
- libpcap supporting natively netmap
- netstat -R montre les informations RSS/flow
- TCP Fast Open
- Modular TCP stack
- TCP fastpath



Storage

- Great performance improvements on NFS
- Great improvements in ctld
- Lots of ZFS updates
- I/O throttling via rctl(8) (bytes or operations)
- High Availability Clustering in CTL



Virtualisation

- Xen dom0
- bhyve:
 - UEFI support (Windows and Illumos guest)
 - Netmap support
 - VirtFS (probably)
- Improved HyperV support
- jails:
 - support extra ifconfig args in ip4.addr/ip6.addr (allowing CARP)
 - top and ps can now filter output by jail
 - kern.osrelease and kern.osreldate can now be configured per jail
 - lots of vnet(9) fixes
- Unmapped I/O support in virtio
- virtio-random
- virtio-console
- Complete rewrite of sendfile(2) (async)
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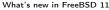
New utilities

- fstyp(8)
- devctl(8)
- uefisign(8)
- new autofs(5)/automount(8)
- sesutil(8)
- numactl(8)
- autofs(5)
- casperd(8)
- mprutil(8)/mpsutil(8)



Misc

- ZFS support for UEFI boot/loader
- Geli support for for the loader
- Boot Environement support for loader
- man(1) using mandoc(1) as a default renderer
- apropos(1) fine grain search
- Unicode collation
- New reroot mechanism
- Improved linux emulation (epoll, linux64)
- IPSEC in GENERIC
- IPSEC support aesni(4)
- linuxkpi
- onifconsole/3wire in ttys
- dtrace for userland
- NUMA improvements
- Dragonfly Mail Agent
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Probably for 11

- Encrypted Kernel Crash Dumps
- Routing refactoring: able to forward 12MPPS on 16-core box for both IPv4/IPv6 which is 6-10 times better than stock HEAD
- Packages for base
- sendmail off by default
- stable VIMAGE





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