

# State of the FreeBSD Toolchain

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# The Problem



# Post GPLv3 Toolchain

- What is FreeBSD's plan?
- What is our status?  
(What will ship in 9.0?)
- What do we need for a  
GPL-free FreeBSD-10?

# What is FreeBSD's plan?

Tool / Library	Replacement	Owner
gcc/g++	clang & LLVM	dim, rdivacky
binutils	elftoolchain*	jkoshy, kaiw
gdb	lldb or pathdb?	???
gcov	callgrind?	???
libstdc++	libc++	???
libgcc.a	compiler_rt	ed
libgcc_s.so	libunwind?	???

# What is our Status?

- clang/llvm in HEAD
- i386/amd64 work
- libgcc.a replaced
- cross builds work
- libsupc++ coming soon
- most binutils programs rewritten

# What about 9.0?

- clang/clang++ installed along side gcc/g++
- cc/c++ will be gcc/g++
- may build i386 & amd64 world with clang
- external toolchain support planned

# What do we need for a GPL-free FreeBSD-10?

- linker (ld)
- libcpp
- libgcc\_s.so
- debugger
- support for switching ports compiler
- solid, tested ARM and MIPS backends
- fix warnings in base

# We need your help!

- <http://wiki.freebsd.org/BuildingFreeBSDWithClang>
- port libc++ and lldb
- write a linker
- donate to the FreeBSD Foundation