

Compiler Migration

We need a new default compiler for users. This will also likely be the compiler used for illumos-userland.

Requirements

- Vanilla gcc works fine with DTrace. CTF friendliness only matters for illumos-gate
- Not having to ship multiple supporting library versions with system for eternity
- Probably libstdc++ ABI (libc++ should remain compatible)

Candidates

Compiler	Features	Configuration	Testing	Caveats
gcc 3.4.3 (csl-sol210-3_4-20050802)	Compatible with illumos-gate	/usr/sfw prefix	Builds illumos-gate, builds parts of Userland and SFW	Cannot build some newer software; no longer maintained by upstream
gcc 4.4.4 (richlowe)	List of changes . Same as 3.4, improved warnings and read-only strings	/usr/gcc/4.4 libdir	Builds illumos-gate	Too old to build some OSS
gcc 4.6.2 (vanilla)	Current stable release; some OSS programs require gcc 4.6 to build	/usr/gcc/4.6 libdir	Builds SFE	Cannot build illumos-gate
clang 2.9 (vanilla)	Builds basic C programs	?	Mostly untested	Mostly untested; C++ Standard Library has not been ported to Illumos