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Snapdragon® LLVM Compiler

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Agenda

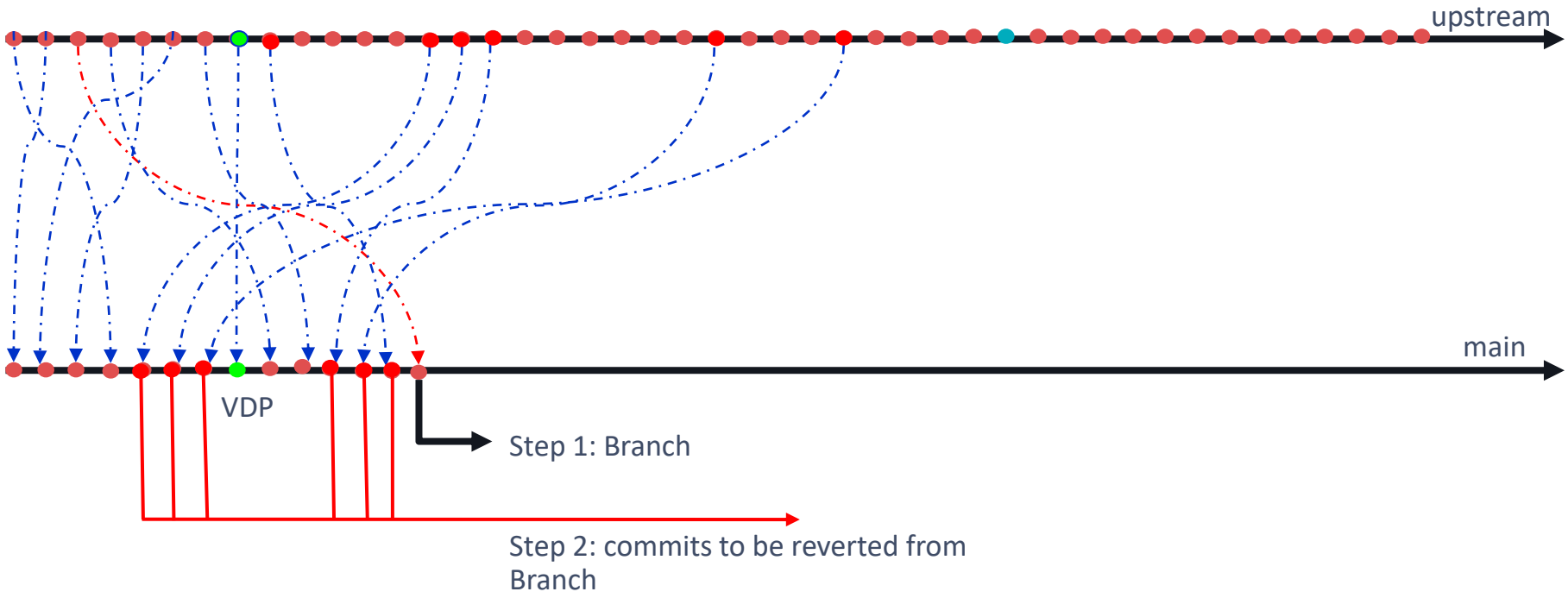
- Snapdragon LLVM Compiler Introduction
- Staying caught up with upstream
- Challenges

Introduction

Snapdragon LLVM Compiler Toolchain:

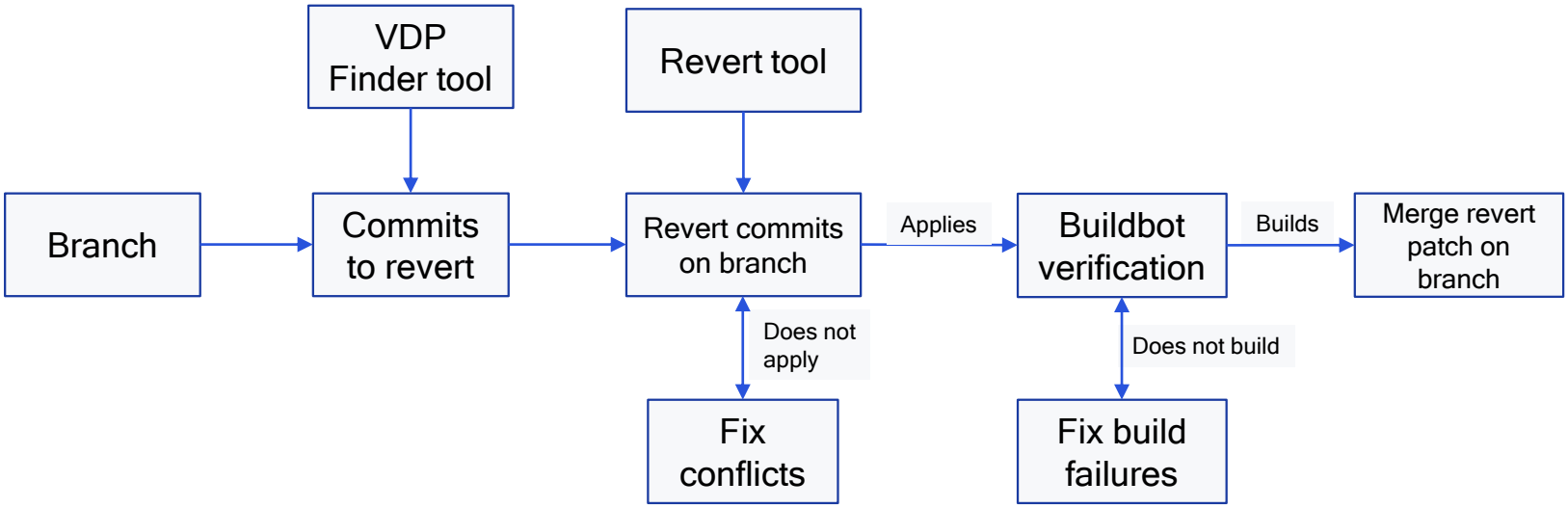
- ❑ Distributed for building Android NDK and Bare metal images
- ❑ Provides performance and code size advantage particularly on Snapdragon micro-architectures and workloads
- ❑ Stays close to the upstream HEAD
- ❑ Supports Linux and Windows

Staying caught up with upstream



VDP – Virtual Drain Point

Staying caught up with upstream (cont'd)



Challenges

- Hard to determine dependencies between patches as upstream no longer uses svn id in commit message
- Do not know when patches are getting reverted
- cmake changes resulting in false positive builds, for example, builds missing some output binaries
- Major upstream code changes causing significant effort to make it downstream compatible
- Newer Android AOSP drops having build issues because of mismatch between upstream LLVM compiler and Snapdragon LLVM

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