SFO17-211 EDK2 Platforms
Leif Lindholm, LEG
OpenPlatformPkg is dead, long live edk2-platforms

- Existing platform support migrated from OpenPlatformPkg, now disbanded

- Platform support now adopted by TianoCore
  - [https://git.linaro.org/uefi/OpenPlatformPkg.git](https://git.linaro.org/uefi/OpenPlatformPkg.git) ->
    - edk2-platforms
    - edk2-non-osi

- Remaining hardware platform support in EDK2 scheduled for migration
  - EDK2 to retain virtual platforms, industry standard drivers (e.g. *HCl) and de-facto standards (for example Arm PrimeCells).
EDK2 Platform Support evolution

Before OpenPlatformPkg (< 2015)

EDK2 + CPU + Platform + Drivers + Vendors Add-ons (OEM) → UEFI Firmware

>5 possible different sources!

With OPP (2015-2017)

EDK2 + OpenPlatformPkg + Vendors Add-ons (OEM) → UEFI Firmware
→ 3 sources*

Merge into EDK2

EDK2 + EDK2-Platforms + Vendors Add-ons (OEM) → UEFI Firmware
→ 1/2 sources*

EDK2-non-osi

*Other optional non-public drivers can be added too, raising the total number of different sources

Same development model & community
Separate codebase for platform support
edk2-platforms

- Official TianoCore repository to hold only open source components
  - [GitHub link](https://github.com/tianocore/edk2-platforms)
- master branch holds all platforms actively tracking edk2 master
- devel- branches hold ports in the process of upstreaming (where this is expected to be a slow task)
- stable- branches track specific UDK releases
- Also holds any new open source device drivers
**edk2-non-osi**

- OpenPlatformPkg permitted inclusion of binary-only components edk2-platforms does not
  - [https://github.com/tianocore/edk2-non-osi](https://github.com/tianocore/edk2-non-osi)

- All binary-only (or dubiously licensed source code) modules confined to edk2-non-osi

- No default license - each subtree needs to specify its own
Practical changes

- No prefix in configuration files like for OpenPlatformPkg
  - PACKAGES_PATH used to instruct `build` command of locations to scan
  - No submodules, so changes to release management required. Perhaps `mr`
    ([https://myrepos.branchable.com/](https://myrepos.branchable.com/)) or `repo`
    ([https://source.android.com/source/downloading](https://source.android.com/source/downloading))

- Platform/driver patches to be sent to `edk2-devel@lists.01.org`
  - `linaro-uefi@lists.linaro.org` will keep existing for the foreseeable future
  - Tagged as being for edk2-platforms: `--subject-prefix="PATCH edk2-platforms"
  - … or edk2-non-osi: `--subject-prefix="PATCH edk2-non-osi"

- Full (hardware) platform created through combined build across multiple
  repositories

- Chips -> Silicon, Platforms -> Platform, Drivers -> Silicon
Platforms included already

- **AMD Seattle**
  - Overdrive, Overdrive 1000,
  - Cello
- **ARM**
  - Juno, Versatile Express
- **Hisilicon**
  - D02, D03, D05
  - HiKey*
- **Marvell**
  - Armada 70x0

Device drivers:

- ChaosKey (USB RNG)
Platforms coming

- Existing EDK2 hardware platforms moved across
  - BeagleBoard, ViV2, Quark, Remaining bits of Juno/Versatile Express

- Marvell Armada 80x0 (MacchiatoBin)

- Socionext SynQuacer (EVB + 96boards platform)

- Minnowboard 3
Linaro uefi-tools

- [https://git.linaro.org/uefi/uefi-tools.git](https://git.linaro.org/uefi/uefi-tools.git) updated to support new structure
  - But to avoid flag-day type changeover, the new build structure is supported by a new front-end script - `edk2-build.sh` - and a new default configuration file - `edk2-platforms.config`.
  - More flexibility with build environment, but also requires explicitly pointing out `edk2 (-e)`, `edk2-platforms (-p)` and `edk2-non-osi (-n)` directories if not present in working directory.

```
$ edk2-build.sh -e ../edk2 -p ../edk2-platforms -n ../edk2-non-osi juno
```

- `edk2-build.sh` supports specifying target architecture as part of the build target: `chaoskey:ARM` `chaoskey:AARCH64`
The short-short version

$ git clone https://github.com/tianocore/edk2
$ git clone https://github.com/tianocore/edk2-platforms
$ git clone https://github.com/tianocore/edk2-non-osi
$ git clone https://git.linaro.org/uefi/uefi-tools.git
$ ./uefi-tools/edk2-build.sh -b DEBUG -b RELEASE all
TianoCore Contribution Agreement

- Updated from version 1.0 to 1.1
  - 1.0 still permitted for patch series “in flight”, but all new submissions should use 1.1

- Only real change is the explicit treatment of documentation contributions
  - Must be FreeBSD Documentation License

- The truly diligent may need to revisit existing internal approvals
Thank You

#SFO17

BUD17 keynotes and videos on: connect.linaro.org

For further information: www.linaro.org
UEFI support in U-Boot

- Rob Clarke and Alex Graf (and others) keep adding features to upstream U-Boot.

- Can now run UEFI Shell from edk2/ShellBinPkg.

- Nearly have sufficient support for running UEFI SCT (FAT filesystem write support missing)