LHG OE Initiative
Status and Next Steps
Overview

- Review of LHG OE Layer Strategy proposed (LHG-54)
- Current Status and Implementation challenges
- Next Steps
LHG OE Layer Strategy (LHG-54)

● Motivation
  ○ Need efficient way to upstream LHG work
    ■ Provide public builds on public boards (eg: 96Boards)
  ○ Need convenient way for Members to use LHG work in products
    ■ Provide backports from tip to LHG SC chosen Yocto Release

● Key Technologies
  ○ Wayland-Weston (Graphics)
  ○ GStreamer (Multimedia)
  ○ OP-TEE
  ○ Chromium, OCDM, DRM
LHG OE Layer Strategy (LHG-54)...

- **meta-linaro-integration**
  - OE Recipes that have established public repositories
    - Eg: openembedded-core
  - Layer will be used to hold patches en-route to upstream

- **meta-linaro**
  - OE Recipes that do not yet have established public repositories
    - Eg: OP-TEE
  - Layer will be used to host OP-TEE until more established recipe repo created

- **meta-lhg**
  - Thin layer to bring reference builds together
  - Platforms: B2120(ST), HiKey (HiSi), Beagle-X15(TI), Dragon 410c(QC)
LHG OE Layer Strategy (LHG-54)...

- **Branches**
  - **Master**
    - For upstreaming
  - **Release**
    - For product reference (Tentative start Mar/Apr’16)
LHG OE Current Status (Jethro)

- **meta-lhg**
  - Thin layer, mostly configs to make LHG builds look consistent across platforms
    - Eg: weston.sh: BACKEND=drm-backend-so
    - Eg: weston.ini: shell=desktop-shell.so
    - No platform dependencies!

- **lhg-oe-manifests**
  - repo setup xml scripts and instructions for platforms
    - One file per platform (Eg: Dragon-410c, Beagle-X15…)

- **meta-backports**
  - recipes to move specific components from Jethro to master!!
    - Eg: wayland 1.8 (Jethro) -> wayland 1.9 (tip)
  - Note: patches were backported from OE-core master.
Platform Status

- OE-core Jethro + meta-backports
  - Dragon 410c:
    - lof-weston-image.bb (Weston, Wayland base image)
    - lof-mm-image.bb (above + GStreamer)
    - lof-chromium-image.bb (above + Chromium)
  - Beagle-X15
    - lof-weston-image.bb (with pixman)
  - HiKey
    - TBD
Why meta-backports? Why Jethro?

- Issues with OE-core master
  - Resource intensive to keep build stable for developers.
- Instead, Jethro + meta-backports
  - Stick to latest stable (Jethro) for all components, except...
  - components LHG/Linaro is working on (Eg: wayland, libdrm..)
    - Move these components to OE-core master branch
      - Eg: wayland 1.8 (Jethro) -> wayland 1.9 (master)
      - Eg: libdrm 2.4.62 (Jethro) -> libdrm 2.4.66
meta-backports + Jethro

● Advantages
  ○ Provides reference public builds on public platforms.
  ○ Enables developers to get as close as possible to tip of specific project (Eg: at least gets to wayland 1.9)
    ■ With minor changes, developers can show their patches and builds working to upstream reviewers and maintainers.
  ○ Backporting already upstreamed patches.

● Disadvantages
  ○ Still away from showing consolidated patchset of all LHG upstream developers in single place in the LHG reference builds.

● Discussion
  ○ Deal with disadvantage above.