Comments/Discussion

Toyota proposal
17.jul.2020

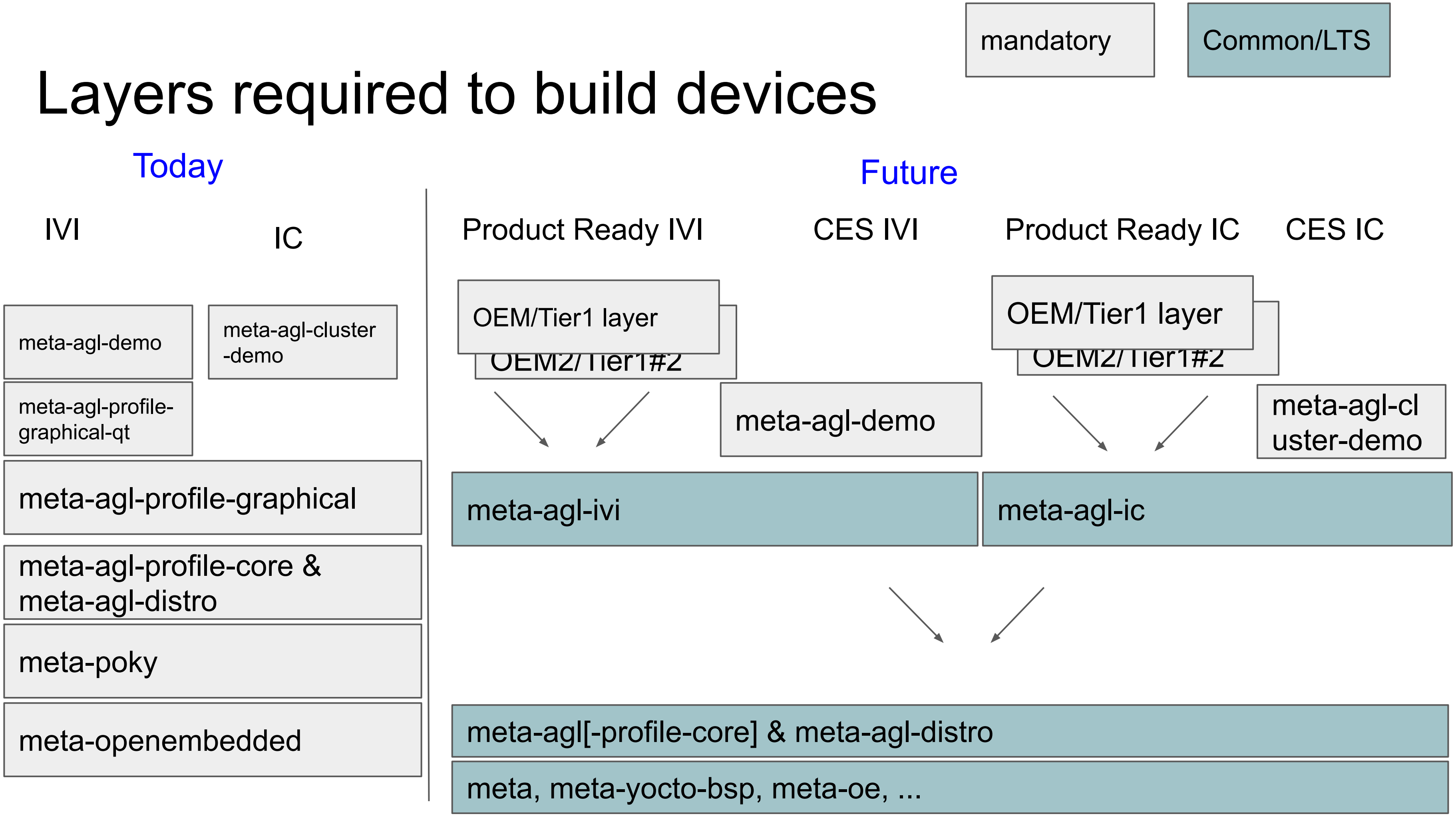
How to start this off:

- A new profile is welcome and we can reshuffle the old IVI demo.
- But there must be consent about the common components (remember, **UCB**!):
  - We build upon YP and standardise on the current v3.1 LTS 'dunfell'
  - We start with an basically empty core but a common distro configuration
  - We populate the leaf IVI and IC profiles then follow these guidelines:

Guidelines

- If a function can be provided by FOSS, use and improve FOSS upstream
  - **== use FOSS rule**
  - **== patches must be submitted to upstream before inclusion**
- Any component *used in more than one profile* is to be promoted (e.g. to agl-profile-core or if we see the need to have intermediate layers like agl-profile-graphical et al)
  - **== reuse rule** , handled by SAT
- Any component present in the YP, BSP and AGL core layers *shall not be modified* (source code) in the upper verticals, exceptions are separate -conf sub-packages or as decided by SAT.
  - **== unmodified core rule** , exemptions need SAT approval

Layers required to build devices



mandatory

Common/LTS

Today

IVI

IC

meta-agl-demo

meta-agl-cluster-demo

meta-agl-profile-graphical-qt

meta-agl-profile-graphical

meta-agl-profile-core & meta-agl-distro

meta-poky

meta-openembedded

Future

Product Ready IVI

CES IVI

Product Ready IC

CES IC

OEM/Tier1 layer

OEM2/Tier1#2

meta-agl-demo

OEM/Tier1 layer

OEM2/Tier1#2

meta-agl-cluster-demo

meta-agl-ivi

meta-agl-ic

meta-agl[-profile-core] & meta-agl-distro

meta, meta-yocto-bsp, meta-oe, ...

Responsibilities and Interaction of EGs

- EG's should drive their profile thus Toyota gets to lead the IVI EG initially
- should build on *meritocracy*
    - Committer Access Granted by contributions, nomination by EGs , approval by SAT
    - Should have OEM/Tier1 partner as co-lead if possible
- EG Responsibilities:
    - Requirements, Architecture, OSS review and propose inclusion to SAT
    - Roadmap, propose features for next release to SAT
    - Bug Triage (at least bi-weekly, need to have 1-2 ppl to take on bugs and resolve them)
    - Staffing Reviewers (Duty to review/respond gerrit within 24-48h)
    - Staffing Maintainers (Merge rights, response time 24-48h)
    - Staff test-engineer developer to assist CIAT effort for their profile/EG
- SAT will be responsible for coordination of interaction of EGs
    - Responsibilities:
        - promotion of software components to core, integrating and maintaining core
        - approve adoption of new OSS
        - resolution of conflicts of software components
        - integration of BSPs. maintaining core stability

Architectural Decisions to be made

- Important distro-wide choices so we have to choose (as global or not):
  - We use the *same* display server (aka wayland) - upfront decision required.
  - We use the *same* init system (aka systemd) - upfront decision required, fundamental !
  - We use the *same* sound system (pipewire or not?)
  - We use the *same* ……….
  - We use the *same* ……….
- Window manager, compositor, use of Denso RBA in IVI and IC?
- bt, appfw, security (SMACK or other?),
- See "Software Architecture (plan)" slide in original presentation

Architectural Decisions to be made

- Support for multiple factory installations using a single image
  - Different vehicles models and optional equipment selected in factory could result in different filesystem images being required vs. provisioning the display and cockpit layout in factory
  - Multiple display sizing/scaling within a single image ?
  - CAN requirements. Additional OEM requirements needed
- App Framework
  - App store and run-time installation of apps required?

Todo: Need IC-EG and IVI-EG member, Tanikawa-san, Scott, Jan-Simon to fill-in

Plan of actions to be taken in preparation

- Move of old 'agl-demo' components fully into meta-agl-demo
    - this includes then all of the non-common components
    - consequently all appfw, all binders and such
- meta-agl-profile-core will be initially empty, we start with a minimal image
    - then apply rules outlined and start to fill with common code
- meta-agl-profile-graphical, agl-profile-graphical-qt5/agl-profile-graphical-html5
    - can stay to allow dependency separation wrt qt inclusion vs. html5 only
    - but tbd if we wanna carry it or just fold into ivi layer until reuse rule forces move
- deprecation of meta-agl-profile-cluster-qt5
- meta-agl-ic to be populated by IC-EG
- meta-agl-ivi to be populated by IVI-EG
- meta-agl-profile-hud/telematics are tbd , they're small but would need rework

TBD

- Own repos vs. subfolders in meta-agl
    - gerrit can do different ACL only on own repo
    - jenkins trigger of different build process easier on own repo
    - own repo means more complex integration (inter-repo commits/dependencies)
    - move between repos means loss of history
- Recommendations to be discussed:
    - use meta-agl-devel as incubation project space as we did previously
    - but do have all main profiles in meta-agl to keep history
    - NEEDS FURTHER EVAL
        - needs for ACL vs inter-repo dependencies vs. code history vs. workflow requirements
- TBD: have meta-agl (core) tested by YP autobuilder to ensure LTS & master
- TLDR: need session to talk through all of this based on EG needs