# AGL Layer Planning Meeting

May 19 – 20, 2015

# Attendees

| Name | Company | Tuesday | Wednesday |
|---|---|---|---|
| Rudi Streif | Jaguar Land Rover | x | x |
| John Lehmann | Jaguar Land Rover | x | |
| Matt Porter | Konsulko | x | |
| Artemi Ivanov | Cogent Embedded | x | |
| Pete Popov | Konsulko | x | x |
| Walt Miner | Linux Foundation | x | x |
| Dan Cauchy | Linux Foundation | x | x |
| Noriaki Fukuyasu | Linux Foundation | x | x |
| Taddeo Tanikawa | Panasonic | x | x |
| Hisao Munakata | Renesas Electronics | x | |
| Jayan John | Symphony Teleca | x | x |
| Ned Miljevic | Wind River | x | x |

# Input for Apps/ Priorities for 2015

- Toyota
  - Native apps
  - Vehicle information (HVAC, BCM status, temperature, etc.)
  - Media browser and player for local content
  - Navigation
- JLR
  - Crosswalk integration with AGL platform (OE Core)
  - Qt5 and Crosswalk coexistence
  - Port existing Crosswalk apps to native app framework
- Others
  - Best Freakin' Home Screen Ever
  - Boot time to Home Screen under 10 sec
  - Renesas Porter board & Minnowboard Max (or VTC)
  - Settings

# Summary of 2015 Goals

- AGL Goal is Home Screen, Media Player, and HVAC for CES
- Native and Crosswalk versions of the apps available
- POC for Qt5 and Crosswalk coexistence

# Phases

- Phase 1 goals
  - Create an AGL Distro
  - Replacement for Tizen IVI, provide the same infrastructure that Tizen IVI provided
  - Unify as much as possible AGL, Tizen IVI and GENIVI
  - Design the layers such that the base distro can be used for IVI, Cluster, Telematics
  - Create the recipes and layers
  - Create test framework
  - App framework and demo is out of scope for Phase 1
  - Support ARM and x86 (Minnowboard or VTC 1010)
  - Release phase 1 by end of August

# Phases

- Phase 2 goals
  - Identify release cadence and support going forward (bug fixing, security updates, frequency of releases)
  - App framework(s)
  - Demo applications (Home Screen, Media browser/player, Vehicle data, Settings)
  - Option for Native vs HTML5 apps
  - Support for QEMU or virtualized emulator?
  - Release Phase 2 by end of 2015
- Phase 3 goals
  - SDK
  - Profiles for Cluster, HUD, Telematics

# Decisions (End of Day 1)

- Decided on high level goals for phases 1-3
- Poky not Debian
- Create new meta-agl layer
  - Migrate from meta-tizen to meta-agl
  - Identify Tizen components to be adopted or deprecated
  - Leverage meta-ivi for GENIVI components
  - Include AGL components in meta-ivi after WR proposal
- Support for native and non-native app frameworks

# Decisions and Actions (End of Day 2)

- Set AGL Goal of having a demo of Home Screen, Media Player, and HVAC for CES using the AGL distro
- Decision to build meta-agl using meta-oe as starting point instead of using meta-tizen and removing components
- Decision to use LF infrastructure instead of GitHub and GerritHub
- Decision to investigate the security framework rather than choosing Tizen SMACK approach
- Created task list for phase 1 and phase 2 of the distribution project to be refined prior to ALS
- Completed the ALS meeting agenda

# Infrastructure

- Jira server up and running for issue tracking
- Host on Github and Gerrithub vs. dedicated LF servers
- Jenkins on LF servers

# Meta-agl – Build up from scratch versus tear down Tizen

## Build Up from Poky

- Pro
  - Unencumbered by existing baggage
  - Architecturally purer
  - Yocto/OE BSP architecture comes with it
  - Can easily revisit the security
  - Can revisit policy manager
  - Easier to leverage other layer such as meta-ivi for GENIVI
- Con
  - Potentially longer time to demonstrate
  - Value in apps
  - AGL must support new Yocto layer
  - No application framework
  - New design for security (or rework Smack)
  - New design for Policy manager (or rework Murphy)

## Tear out from Tizen

- Pro
  - Tizen works today
  - Smack security built-in
  - Murphy policy management built-in
- Con
  - Too many dependencies to remove undesired parts cleanly
  - Rework of Tizen Yocto to enable ARM and be better Yocto citizens
  - No native app support
  - Long term commitment to maintain
  - Not everyone wants Smack and Murphy
  - Difficult to maintain Smack due to patches not upstreamed
  - Lifecycle management not compatible with GENIVI
  - EFL needs to be removed
  - Concerns on long term governance

**Decision**: we will go with the “Build Up” option, and if we are not making enough rapid progress, we will revisit

# Infrastructure – GitHub vs LF Hosted

## GitHub w/ GerritHub

- Pro
  - Easier user management
  - No LF IT required
- Con
  - Only free for open projects
  - Some companies may not be allowed to access GitHub

## LF Hosted Git/Gerrit

- Pro
  - Already have most of the infrastructure working with LDAP single sign-on support
  - PR advantage, perception of AGL "owning" the project, URL points to AGL website
  - More control over Git/Gerrit versions
  - Better for member recruitment
  - Perception that project is "hosted at LF"
- Con
  - Setup and maintenance using LF IT
  - LDAP quirks need to be worked out

**Decision**: we will go with the "LF hosted" option, LF will investigate what remains to be done to get this up and running.

# ALS Meeting Agenda

- Expected attendees
  - Walt, Dan, Nori, Pete, SAT members from Japan
- Agenda
  - Review output from Ned on package comparison
  - Project plan review  (work breakdown with finer detail)
  - Update on LF infrastructure
  - AGL Spec Release and plan for next revision

# OTHER NOTES FROM MEETING

# NOTES

❖Yocto Dizzy build has ~5140 packages

❖Current TIZEN IVI/ Common distro Yocto layers have ~330 recipes and GENIVI Yocto layer has ~38 recipes

❖TIZEN provided layers:

- meta-qt5
- meta-selftest
- meta-skeleton

•Tizen specific

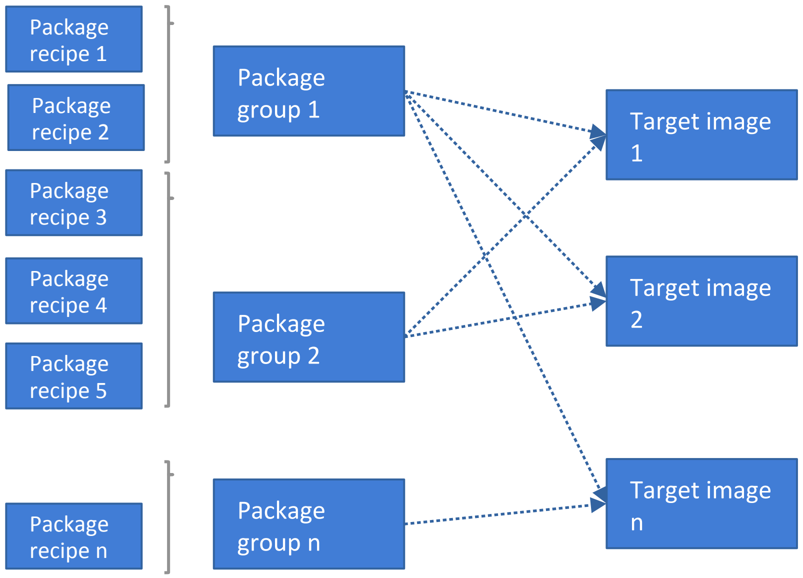
- meta-tizen

❖ GENIVI specific layers:

- meta-ivi
- meta-ivi-bsp
- meta-ivi-demo

❖TIZEN has ~11 build targets and GENIVI has ~2 build targets

❖Yocto supports handling of multiple versions of packages as well as duplicates.



# OPTION 2 -> MAINTAIN EXISTING LAYERS

STEP 1 – AGL SPECIFIC LAYER

❖Start with Yocto Dizzy code base

❖Create agl layer recipes and update bblayers conf

❖Create dummy package groups for AGL distro

STEP 2 – TIZEN RECIPES

❖Populate AGL package groups

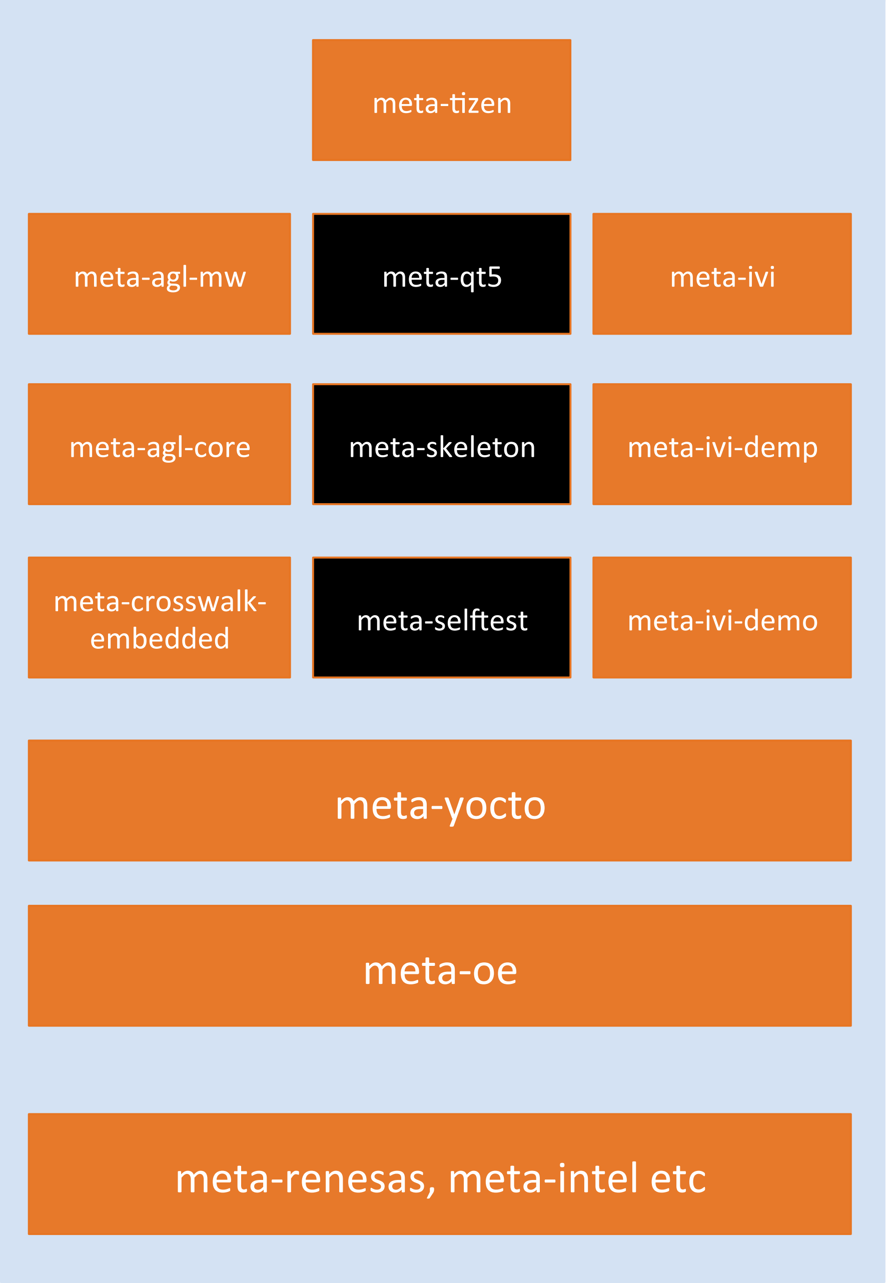
STEP 3 – GENIVI RECIPES

❖Populate AGL package groups

ISTEP 4 – AGL TARGET IMAGES

❖Identify packages that that are required by AGL that do not exist

❖Create and populate AGL target image recipes



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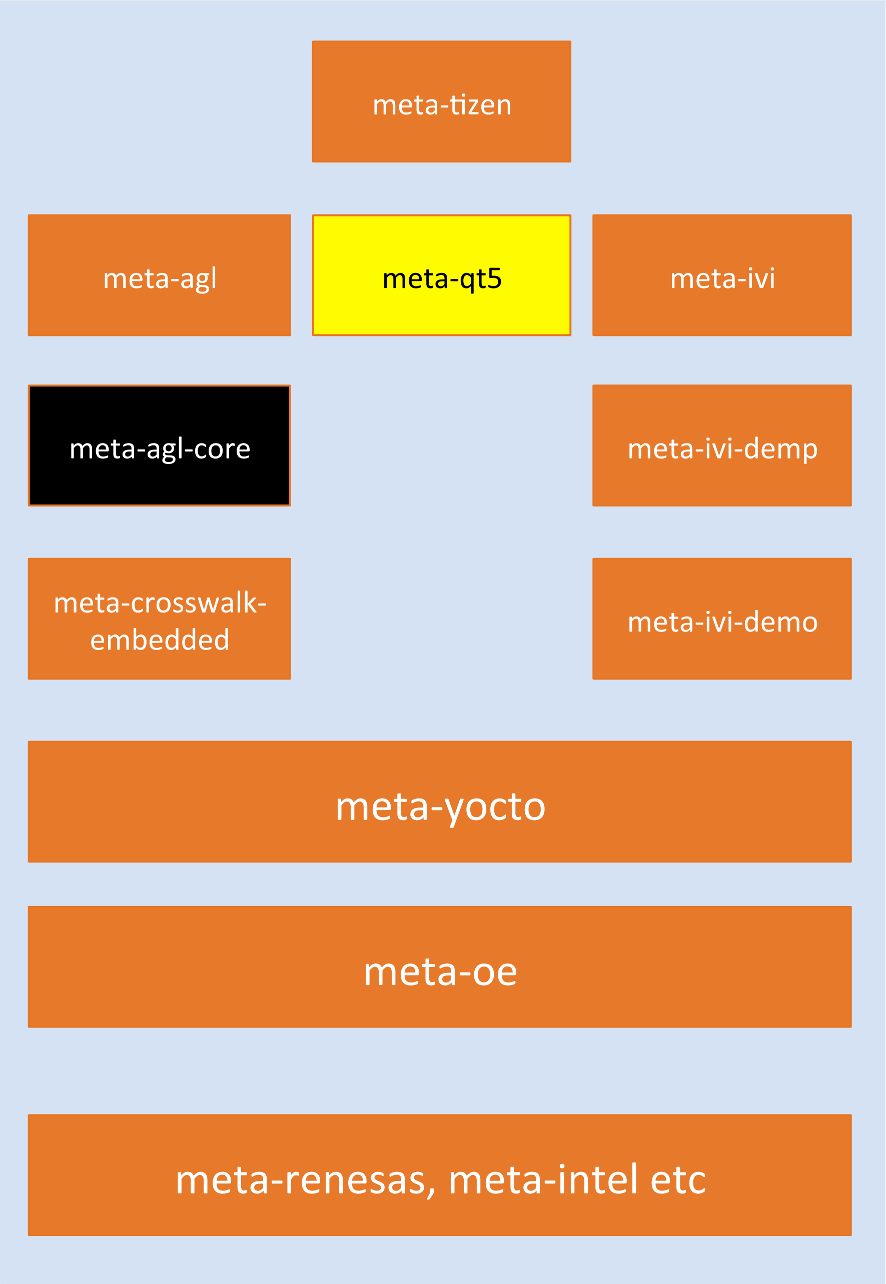

# Notes

- Key characteristics of an Automotive Distribution
  - Published Roadmap
  - Expandable from IVI to Cluster, Telematics, and automotive networking hub
  - SDK available for app developers
  - Ability to create BSPs by semis
  - Test framework and test cases

# Output phase 1

- Distribution
  - Built on Poky
  - Yocto 1.7
  - Starting point
    - Tizen IVI – (not needed stuff)
    - Poky for R-CAR H2 and Intel + stuff

# Wind River

- Proposal
  - Include meta-ivi in AGL
  - WR will include several AGL packages in meta-ivi and maintain them (list TBD inside WR) in next few weeks)
  - WR will take care of having these components work together with the rest of the meta-ivi layer
- Discussion
  - Open governance? Yes with some limitations due to WR business interests
  - Meta-ivi limited to the packages required for GENIVI compliance

# Communications

- Use AGL Discussions mail list for day to day technical work of the team
- Can split off to new mail list if traffic from a particular topic overwhelms the list
- Use existing weekly SAT meeting for architecture topics and set up special meetings of this group for distro topics