

BIT Introduction and BoF

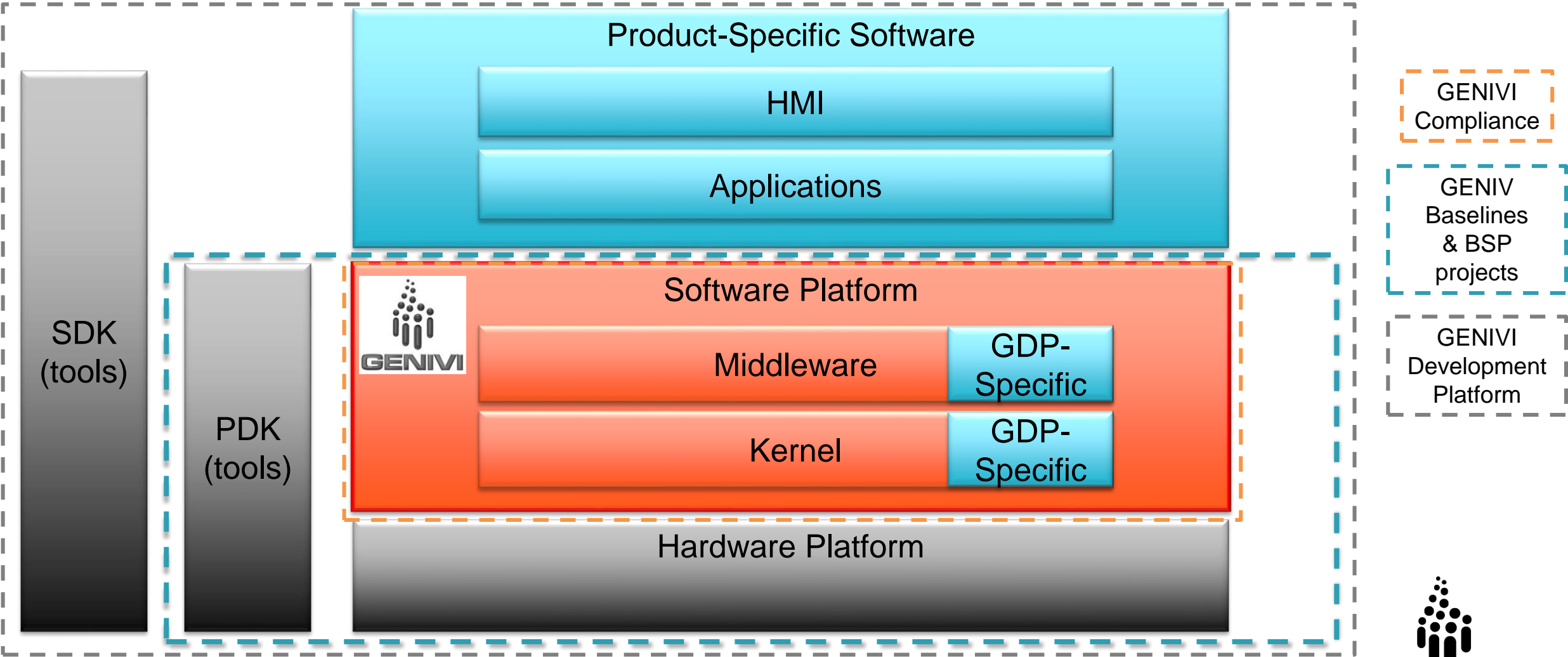
May 2017 | Building the middleware we all share

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BIT Introduction

Baseline Integration Team scope



Baseline Integration Team deliverables

- GENIVI Baselines
 - A GENIVI Baseline is a software platform meant to verify the compliance and offer a maintained minimal software platform to the developers.
 - The baseline is used as a reference to integrate the GENIVI SW components.
 - Useful as a starting point for your own platform.
 - The Baselines and GDP are the only Genivi codebase we all share.
- GENIVI BSP Guidelines
 - A GENIVI BSP is a public hardware BSP integrated with a GENIVI baseline to meet the GENIVI compliance and that meets the BIT BSP contribution guidelines.

Genivi Yocto Baseline

- The Yocto Project provides tools and meta data to create your own embedded custom Linux distribution
- Yocto has a Poky reference distribution.
- Meta-ivi project ([source](#), [doc](#)) modifies the Poky reference distribution to add IVI support and be Genivi compliant.
- Genivi Yocto Baseline = meta-ivi + Poky

Yocto Baseline vs GDP

- Baseline
 - When you want strict Genivi compliance.
 - Good basis for your own platform.
 - Flexibility to choose your own App Manager and HMI frameworks
 - Codebase we share for collaboration on Genivi core.
- GDP
 - Good when you just want to develop apps on top of a HMI
 - Provides HMI framework ready integrated
 - Incubator for new tech, including early PoCs from Genivi
 - May not be strictly Genivi compliant
 - Codebase for collaboration higher in the stack including App Managers

BIT BoF



Testing in the open

- Genivi components have test suites.
- Historically testing has taken place within the Expert Group dev teams and member companies.
- Now moving towards testing in the open as well
 - Reporting baseline test results
 - Easing the integration of component test suites into the baseline
 - Test automation and extending CI to CIAT

Meta-ivi-test Yocto layer

- Adds packages required to run test suites to meta-ivi
- Current support:
 - AudioManager
 - wayland-ivi-extension
 - Common API C++ runtime
 - Persistence: persistence-administrator, persistence-client-library, persistence-common-object
 - dlt-daemon
 - Lifecycle: node-state-manager, node-health-monitor, node-startup-controller
- Need assistance with:
 - Checking integration and test coverage of current support
 - Adding missing component tests
 - Work bring managed in open JIRA ticket [BASE-5](#)

Automated Test

- Genivi is looking for contributors for automated test
 - Extending Genivi CI to CIAT
 - Automating meta-ivi-test
 - GDP UI testing
 - Fuego, LAVA
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- Automation infrastructure falls in the scope of the Tools Team
 - Bi-weekly conference call. 5pm CET

aarch64 support in Yocto

- Meta-ivi officially supports three qemu targets:
 - qemu-vexpress (armv7), qemu-x86 (IA-32), qemu-x86-64
- With physical h/w support provided by the community
- With silicon vendors shipping aarch64 based SoCs we are discussing adding it to the list of official targets.
 - Should be vendor neutral
 - Broad upstream support
 - To test ivi-extension wayland gfx support is required
- Looking for your input
 - Collecting information in open JIRA task [BASE-43](#)

Yocto Baseline (meta-ivi) Yocto BSPs

- meta-ivi project has a meta-ivi-bsp layer
 - Currently more about simple adaptations,
e.g. recipes-graphics/wayland/Weston.bbappend: foo_porter
- Under consideration:
 - We are considering how to handle more wider ranging changes
e.g. separate sub-trees per board family
meta-ivi-bsp
meta-foo-bsp
meta-bar-bsp
 - Need to balance supporting both simple and larger adaptations
 - How to maintain link so user can see how Yocto BSP, meta-ivi-bsp adaptations and GDP adaptations all relate.

Thank you!

Visit GENIVI at <http://www.genivi.org> or <http://projects.genivi.org>

Contact us: help@genivi.org

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