

Linaro Health Check September 2020

October 7, 2020



AI Project (AI)

September 2020

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

12.5 engineer months for 6 remaining planned epics

AI Project (AI)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

1 / 2

Setup CI and test automation (AI-1)		JIRA >
Optimize TFLite through an ArmNN/ACL delegate (AI-3)		JIRA >
TVM Arm NN integration for edge devices (AI-4)		JIRA >
Improve ONNX runtime for the Arm ecosystem (AI-24)		JIRA >
Expand benchmark / testing portfolio for ML (AI-25)		JIRA >
Initial TVM community engagement, establish ARM as first class citizen (AI-27)		JIRA >
Initial uTVM Evaluation (AI-28)		JIRA >
Implement Initial Heterogenous Acceleration for TVM on ARM (AI-29)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)


AI Project (AI)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

2 / 2

Tensorflow NEON/SIMD/SVE(2) enablement (AI-30)		JIRA >
PyTorch NEON/SIMD/SVE(2) enablement (AI-31)		JIRA >
OpenMP NEON/SIMD/SVE(2) enablement (AI-32)		JIRA >
OpenCL NEON/SIMD/SVE(2) Enablement (AI-33)		JIRA >
OpenCV integration/enablement with NEON/SIMD/SVE(2) (AI-34)		JIRA >
Dynamic Online Learning (AI-38)		JIRA >
Improve uTVM to be product ready (AI-58)		JIRA >

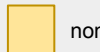
legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Setup CI and test automation ([AI-1](#))

- In Progress: [AI-13](#)

Optimize TFLite through an ArmNN/ACL delegate ([AI-3](#))

- In Progress: [AI-20](#)

Improve ONNX runtime for the Arm ecosystem ([AI-24](#))

- In Progress: [AI-43](#)

Expand benchmark / testing portfolio for ML ([AI-25](#))

- In Progress: [AI-44](#)

Improve uTVM to be product ready ([AI-58](#))

- In Progress: [AI-46](#), [AI-59](#)

Related Cards

DEPENDENCIES

Tensorflow NEON/SIMD/SVE(2) enablement ([AI-30](#)) - **TODO** - depends on:

- [UM-68](#) - Improve generic string routines - **OPEN**
- [GNU-635](#) - Validate GDB AArch64 SVE general support on real hardware - **OPEN**
- [GNU-627](#) - SVE support in GNU Toolchain - **OPEN**

PyTorch NEON/SIMD/SVE(2) enablement ([AI-31](#)) - **TODO** - depends on:

- [UM-68](#) - Improve generic string routines - **OPEN**
- [GNU-635](#) - Validate GDB AArch64 SVE general support on real hardware - **OPEN**
- [GNU-627](#) - SVE support in GNU Toolchain - **OPEN**

OpenMP NEON/SIMD/SVE(2) enablement ([AI-32](#)) - **TODO** - depends on:

- [GNU-635](#) - Validate GDB AArch64 SVE general support on real hardware - **OPEN**
- [HPCAI-14](#) - OpenMP enablement - **TODO**

OpenCL NEON/SIMD/SVE(2) Enablement ([AI-33](#)) - **TODO** - depends on:

- [GNU-635](#) - Validate GDB AArch64 SVE general support on real hardware - **OPEN**

OpenCV integration/enablement with NEON/SIMD/SVE(2) ([AI-34](#)) - **TODO** - depends on:

- [GNU-635](#) - Validate GDB AArch64 SVE general support on real hardware - **OPEN**

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

20.45 engineer months for 11 remaining planned epics

Initiative Progress 1 / 2

Linaro Confectionary Release for P And O-MR1 (LCG-326)		JIRA >
ART Efforts (LCG-390)		JIRA >
Linux Kernel Activities for Android (LCG-395)		JIRA >
Efforts in Support of Android dev boards (LCG-1884)		JIRA >
Maintain and improve DRM-HWComposer (LCG-2398)		JIRA >
GKI, phase 2 (LCG-2399)		JIRA >
Implement missing Cuttlefish HALs (LCG-2424)		JIRA >
Bootloader for Cuttlefish (LCG-2425)		JIRA >

legend
 cancelled
 completed
 non-completed
 blocked
 added
 removed
 more epics (hidden for brevity)

Initiative Progress 2 / 2

CTS/VTs compliance for cuttlefish (LCG-2426)		JIRA >
Measure Virtualized Android Performance to drive improvements (LCG-2427)		JIRA >
Android Common Kernel Validation Efforts (LCG-2514)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Linaro Confectionary Release for P And O-MR1 ([LCG-326](#))

- In Progress: [LCG-334](#)

ART Efforts ([LCG-390](#))

- In Progress: [LCG-2491](#), [LCG-2495](#), [LCG-2496](#)

Linux Kernel Activities for Android ([LCG-395](#))

- In Progress: [LCG-310](#), [LCG-2250](#)

Efforts in Support of Android dev boards ([LCG-1884](#))

- In Progress: [LCG-2250](#), [LCG-2280](#), [LCG-2281](#), [LCG-2298](#)

Android Common Kernel Validation Efforts ([LCG-2514](#))

- In Progress: [LCG-2515](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None


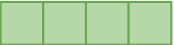
SCHEDULE CHANGES



None

REMAINING EFFORT FOR PLANNED EPICS

19 engineer months for 5 remaining planned epics

Initiative Progress

SBSA QEMU Machine (ASA-23)		JIRA >
Open Source Firmware Stack for Arm64 (ASA-52)		JIRA >

legend  cancelled  completed  non-completed  blocked  added  removed  more epics (hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

SBSA QEMU Machine ([ASA-23](#))

- [ASA-4](#) - Create CI for Running SBSA Test Suite on QEMU SBSA Machine
- [ASA-9](#) - Dynamic ACPI for SBSA QEMU Machine Without fw_cfg

Open Source Firmware Stack for Arm64 ([ASA-52](#))

- [ASA-31](#) - TPM 2.0 under Linux
- [ASA-33](#) - TPM 2.0 Measured Boot
- [ASA-34](#) - TPM 2.0 Putting it Together

REMAINING WORK FOR THE CYCLE

SBSA QEMU Machine ([ASA-23](#))

- In Progress: [ASA-2](#), [ASA-8](#), [ASA-11](#), [ASA-14](#), [ASA-57](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

Linaro Developer Cloud Hardware Automation ([CLOUD-126](#))

- [CLOUD-170](#) - External Ceph support with OpenStack Kolla

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

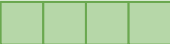


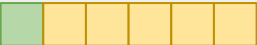

19.15 engineer months for 24 remaining planned epics

Cloud Infrastructure (CLOUD)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

Linaro Developer Cloud V3.0 (CLOUD-98)		JIRA >
Linaro Developer Cloud Hardware Automation (CLOUD-126)		JIRA >
Jenkins-X ARM64 Enablement (CLOUD-138)		JIRA >
Openstack for AArch64 (CLOUD-154)		JIRA >
Linaro Developer Cloud Maintenance (CLOUD-162)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

Linaro Developer Cloud Hardware Automation ([CLOUD-126](#))

- [CLOUD-192](#) - Produce OpenStack U version LDC images

REMAINING WORK FOR THE CYCLE

Linaro Developer Cloud Hardware Automation ([CLOUD-126](#))

- In Progress: [CLOUD-135](#), [CLOUD-141](#), [CLOUD-142](#), [CLOUD-143](#), [CLOUD-144](#), [CLOUD-145](#), [CLOUD-146](#), [CLOUD-171](#), [CLOUD-177](#), [CLOUD-178](#), [CLOUD-184](#), [CLOUD-185](#), [CLOUD-186](#), [CLOUD-200](#)
- Blocked: [CLOUD-170](#)

Jenkins-X ARM64 Enablement ([CLOUD-138](#))

- In Progress: [CLOUD-148](#), [CLOUD-149](#), [CLOUD-151](#)

Openstack for AArch64 ([CLOUD-154](#))

- In Progress: [CLOUD-134](#), [CLOUD-136](#), [CLOUD-163](#), [CLOUD-181](#)
- To Do: [CLOUD-159](#)

Linaro Developer Cloud Maintenance ([CLOUD-162](#))

- In Progress: [CLOUD-116](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

Linaro Developer Cloud Hardware Automation ([CLOUD-126](#)) - **IN**

PROGRESS - relates to:

- [ASA-63](#) - iBFT support on Arm64 - **OPEN**

Jenkins-X ARM64 Enablement ([CLOUD-138](#)) - **TODO** - relates to:

- [LBI-29](#) - Port Cloud Native CI/CD projects to Arm - **CLOSED**

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

No planned effort left

Initiative Progress

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Nothing is remaining for the cycle

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None



SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

54 engineer months for 21 remaining planned epics

Initiative Progress

Apache Bigtop Contributions (BDDS-11)		JIRA >
Big Data Benchmarks, Profile and Optimize (BDDS-47)		JIRA >
Build and Port Big Data Components (BDDS-243)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Apache Bigtop Contributions ([BDDS-11](#))

- In Progress: [BDDS-4](#), [BDDS-7](#)
- To Do: [BDDS-5](#)

Build and Port Big Data Components ([BDDS-243](#))

- In Progress: [BDDS-16](#), [BDDS-17](#), [BDDS-21](#), [BDDS-54](#), [BDDS-64](#), [BDDS-252](#), [BDDS-262](#)
- To Do: [BDDS-22](#), [BDDS-24](#), [BDDS-41](#), [BDDS-42](#), [BDDS-45](#), [BDDS-56](#), [BDDS-68](#), [BDDS-70](#), [BDDS-84](#), [BDDS-87](#), [BDDS-89](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

Big Data Workload Setup, Profile and Analysis ([BDDS-46](#)) - **OPEN** - relates to:

- [BDDS-206](#) - Setup Multi node Hadoop (ODPi) cluster on top of OpenStack - **CLOSED**

Establish CI Loops for Big Data Components ([BDDS-94](#)) - **OPEN** - relates to:

- [BDDS-39](#) - Verify build of all packages in Apache Big Top - **CLOSED**
- [BDDS-105](#) - Build and package Apache Hadoop 2.7 - **CLOSED**

Build and Port Big Data Components ([BDDS-243](#)) - **IN PROGRESS** - relates to:

- [BDDS-44](#) - Profile and Optimise Big Data Workloads - **CLOSED**
- [BDDS-59](#) - Verify build + unit tests, install, run and profiling of Apache HBASE - **CLOSED**

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None


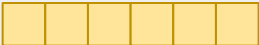


SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

22.5 engineer months for 14 remaining planned epics

Initiative Progress

Infrastructure (HPCAI-161)		JIRA >
HPC Toolchain enablement (HPCAI-430)		JIRA >
HPC Ecosystem enablement (HPCAI-431)		JIRA >
AI on Servers (HPCAI-481)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Infrastructure ([HPCAI-161](#))

- In Progress: [HPCAI-455](#)

HPC Toolchain enablement ([HPCAI-430](#))

- In Progress: [HPCAI-14](#), [HPCAI-31](#), [HPCAI-163](#), [HPCAI-164](#), [HPCAI-475](#), [HPCAI-476](#)

HPC Ecosystem enablement ([HPCAI-431](#))

- In Progress: [HPCAI-2](#), [HPCAI-162](#), [HPCAI-432](#), [HPCAI-471](#), [HPCAI-473](#), [HPCAI-474](#)

AI on Servers ([HPCAI-481](#))

- In Progress: [HPCAI-483](#)

Related Cards

DEPENDENCIES

HPC Toolchain enablement ([HPCAI-430](#)) - **IN PROGRESS** - depends on:

- [GNU-95](#) - GDB Kernel Awareness - **OPEN**
- [ASA-6](#) - 52bit VA Enablement for QEMU - **OPEN**
- [QEMU-360](#) - Support ARMv8.1 AArch64 ISA in Valgrind - **CLOSED**
- [QEMU-362](#) - Support AArch64 SVE ISA in Valgrind - **TODO**
- [QEMU-363](#) - Support AArch64 SVE2 ISA in Valgrind - **TODO**
- [LLVM-548](#) - LLDB SVE Enablement - **UPSTREAM REVIEW**
- [LLVM-285](#) - mtune support for AArch64 - **OPEN**
- [LLVM-574](#) - Add SVE ptrace calls and register descriptions in LLDB - **CLOSED**
- [LLVM-586](#) - Fuzz SVE IR - **CLOSED**
- [LLVM-593](#) - Add support for SVE registers dynamic size change in LLDB - **UPSTREAM REVIEW**
- [LLVM-588](#) - Update LLDB to Support ARM Architectures up to 2019 - **IN PROGRESS**
- [QEMU-359](#) - ARMv8.x support in Valgrind - **IN PROGRESS**

AI on Servers ([HPCAI-481](#)) - **IN PROGRESS** - depends on:

- [HPCAI-465](#) - Tasks to run Machine Learning at Scale and to work towards full AI as the HPC 'Killer-App' - **IN PROGRESS**
- [HPCAI-466](#) - TensorFlow CI - **REVIEW**
- [HPCAI-470](#) - PyTorch CI - **REVIEW**
- [LBI-27](#) - AI on Servers - **CLOSED**
- [AI-30](#) - Tensorflow NEON/SIMD/SVE(2) enablement - **TODO**
- [AI-31](#) - PyTorch NEON/SIMD/SVE(2) enablement - **TODO**
- [AI-32](#) - OpenMP NEON/SIMD/SVE(2) enablement - **TODO**
- [AI-33](#) - OpenCL NEON/SIMD/SVE(2) Enablement - **TODO**
- [AI-34](#) - OpenCV integration/enablement with NEON/SIMD/SVE(2) - **TODO**

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS







5.74 engineer months for 11 remaining planned epics

Camera (CAM)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

libcamera complex camera support (CAM-1)		JIRA >
GStreamer libcamera element plugin (CAM-4)		JIRA >
sdm845 csi and isp kernel enablement (CAM-8)		JIRA >
Camera reference builds (CAM-9)		JIRA >
RDK-C integration with libcamera (CAM-10)		JIRA >
Enablement & upstreaming of Camera sensor drivers (CAM-11)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

Enablement & upstreaming of Camera sensor drivers ([CAM-11](#))

- [CAM-59](#) - OV8856 driver improvements

REMAINING WORK FOR THE CYCLE

libcamera complex camera support ([CAM-1](#))

- In Progress: [CAM-28](#), [CAM-35](#)
- To Do: [CAM-5](#)

GStreamer libcamera element plugin ([CAM-4](#))

- In Progress: [CAM-38](#)

sdm845 csi and isp kernel enablement ([CAM-8](#))

- In Progress: [CAM-19](#)

Camera reference builds ([CAM-9](#))

- In Progress: [CAM-12](#), [CAM-13](#), [CAM-37](#)

RDK-C integration with libcamera ([CAM-10](#))

- In Progress: [CAM-7](#), [CAM-39](#)

Enablement & upstreaming of Camera sensor drivers ([CAM-11](#))

- In Progress: [CAM-16](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

6 engineer months for 7 remaining planned epics

Secure Video (SV)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

Implement upstream and validate SDP (SV-1)		JIRA >
Efforts enabling Widevine (SV-24)		JIRA >
Efforts enabling Playready (SV-25)		JIRA >
Efforts enabling ClearKey (SV-26)		JIRA >
Automated Video & Audio Testing (SV-62)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Implement upstream and validate SDP ([SV-1](#))

- In Progress: [SV-15](#), [SV-38](#), [SV-67](#), [SV-77](#), [SV-78](#), [SV-79](#)

Efforts enabling Widevine ([SV-24](#))

- In Progress: [SV-49](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

- OP-TEE patches for Secure Partition support merged
 - https://github.com/OP-TEE/optee_os/pull/4069
 - https://github.com/OP-TEE/optee_os/pull/3973
- Started working on RPMB virtio interface in U-Boot to complement the QEMU RPMB [emulation](#)

ISSUES / CONCERNS

- StandAloneMM in OP-TEE integration in U-boot and EDK2 ([DB-12](#))**
- [DB-3](#) - StandAloneMM/SPM 32-bit support in OP-TEE

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

3.25 engineer months for 6 remaining planned epics





Dependable Boot (DB)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

1 / 2

Paravirtualized U-Boot with UEFI Secure Boot (DB-10)		JIRA >
ASLR on armv7 (DB-11)		JIRA >
StandAloneMM in OP-TEE integration in U-boot and EDK2 (DB-12)		JIRA >
firmwareTPM backend for Parsec (DB-13)		JIRA >
Firmware and pre-OS updates (DB-14)		JIRA >
QEMU with TF-A, U-Boot OP-TEE (DB-45)		JIRA >
Open Late Binding for device on boarding (DB-47)		JIRA >
Secure Boot - stage 2 (DB-48)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Dependable Boot (DB)

Initiative Progress

2 / 2

September 2020

[DETAILED CHANGES >](#)

Boot attestation (DB-49)		JIRA >
fTPM with OP-TEE (DB-58)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

StandAloneMM in OP-TEE integration in U-boot and EDK2 ([DB-12](#))

- [DB-2](#) - U-Boot with OP-TEE and StMM using RPMB storage
- [DB-5](#) - Upstream OP-TEE changes for secure partition support

Boot attestation ([DB-49](#))

- [DB-26](#) - TF-A boot attestation investigation

REMAINING WORK FOR THE CYCLE

StandAloneMM in OP-TEE integration in U-boot and EDK2 ([DB-12](#))

- Blocked: [DB-3](#)

Firmware and pre-OS updates ([DB-14](#))

- In Progress: [DB-8](#)

QEMU with TF-A, U-Boot OP-TEE ([DB-45](#))

- In Progress: [DB-9](#), [DB-17](#)

Secure Boot - stage 2 ([DB-48](#))

- In Progress: [DB-25](#)

fTPM with OP-TEE ([DB-58](#))

- To Do: [DB-54](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

Firmware and pre-OS updates ([DB-14](#)) - **TO DO** - relates to:

- [KWG-335](#) - UEFI capsule update support in u-boot - **RESOLVED**

Secure Boot - stage 2 ([DB-48](#)) - **IN PROGRESS** - relates to:

- [KWG-403](#) - UEFI secure boot support in u-boot - **RESOLVED**
- [KWG-464](#) - Upstream UEFI secure boot (stage 1) - **CLOSED**
- [KWG-339](#) - UEFI Support implementation in U-Boot - **IN PROGRESS**

Boot attestation ([DB-49](#)) - **IN PROGRESS** - relates to:

- [DB-55](#) - fTPM - Replace WolfSSL with crypto from GP interfaces - **OPEN**
- [DB-58](#) - fTPM with OP-TEE - **TODO**

fTPM with OP-TEE ([DB-58](#)) - **TO DO** - relates to:

- [DB-49](#) - Boot attestation - **IN PROGRESS**
- [DB-57](#) - fTPM linux kernel driver - **CLOSED**

Device Tree Evolution (DTE)

September 2020

Highlights

ACHIEVEMENTS

Clarified Trusting DT aspects in Technical Report
Updated Jira most cards

ISSUES / CONCERNS

Need to better align System Device Tree activities : Jira and documentation

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

47.5 engineer months for 6 remaining planned epics





Device Tree Evolution (DTE)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

1 / 2

System Device Tree (DTE-2)		JIRA >
Trusting Device Tree PoC (DTE-3)		JIRA >
Common DTS Repo (DTE-5)		JIRA >
DTB files life cycle (DTE-8)		JIRA >
DT validation (DTE-24)		JIRA >
Improvements to DT support in U-Boot (DTE-25)		JIRA >
Improvements to DT support in OP-TEE (DTE-28)		JIRA >
Improvements to DT support in TF-A (DTE-29)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Device Tree Evolution (DTE)

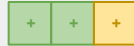
Initiative Progress

2 / 2

September 2020

[DETAILED CHANGES >](#)

Technical Report ([DTE-30](#))



[JIRA >](#)

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

Technical Report ([DTE-30](#))

- [DTE-31](#) - DT Concepts/Terminology/Assumptions
- [DTE-32](#) - DT Use Cases

REMAINING WORK FOR THE CYCLE

System Device Tree ([DTE-2](#))

- In Progress: [DTE-10](#)

Trusting Device Tree PoC ([DTE-3](#))

- In Progress: [DTE-11](#)

Common DTS Repo ([DTE-5](#))

- In Progress: [DTE-20](#), [DTE-21](#)

DTB files life cycle ([DTE-8](#))

- In Progress: [DTE-16](#)

Technical Report ([DTE-30](#))

- In Progress: [DTE-33](#)

Related Cards

DEPENDENCIES

DT Code Generation (for RTOS) ([DTE-6](#)) - **OPEN** - depends on:

- [LITE-444](#) - Power Management Pinmux/pinctrl Updates - **TODO**
- [LITE-445](#) - Power Management Clock API Enhancements - **TODO**

OTHER RELATED

System Device Tree ([DTE-2](#)) - **IN PROGRESS** - relates to:

- [STR-10](#) - hypervisor boot orchestration (type-1) - **OPEN**

Common DTS Repo ([DTE-5](#)) - **IN PROGRESS** - relates to:

- [DTE-28](#) - Improvements to DT support in OP-TEE - **IN PROGRESS**
- [DTE-25](#) - Improvements to DT support in U-Boot - **TODO**
- [DTE-29](#) - Improvements to DT support in TF-A - **TODO**

Improvements to DT support in U-Boot ([DTE-25](#)) - **TODO** - relates to:

- [DTE-5](#) - Common DTS Repo - **IN PROGRESS**

Improvements to DT support in OP-TEE ([DTE-28](#)) - **IN PROGRESS** - relates to:

- [DTE-5](#) - Common DTS Repo - **IN PROGRESS**

Improvements to DT support in TF-A ([DTE-29](#)) - **TODO** - relates to:

- [DTE-5](#) - Common DTS Repo - **IN PROGRESS**

Highlights

ACHIEVEMENTS

- Updated LEDGE-RP to kernel 5.9
- Updated OpenEmbedded for LEDGE-RP to Dunfell
- Support initrd loading via EFI LOAD_FILE2_PROTOCOL when booting with EDK2

REMAINING EFFORT FOR PLANNED EPICS

4.8 engineer months for 11 remaining planned epics

ISSUES / CONCERNS

TSN - 802.1Qbv Scheduler (linux taprio) ([LEDGE-208](#))

- [LEDGE-254](#) - add queueMaxSDUTable interface
- [LEDGE-255](#) - add interface to provide taprio ConfigPending/ConfigChange value
- [LEDGE-256](#) - add interface to provide taprio hw timestamping capabilities

Confidential Computing Consortium sensitive workloads investigation ([LEDGE-217](#))

- [LEDGE-273](#) - Microsoft OpenEnclave and OP-TEE evaluation
- [LEDGE-274](#) - Red Hat Enarx evaluation

Reference platform - stage 4 ([LEDGE-275](#))

- [LEDGE-116](#) - Run Fedora IoT on stm32mp1
- [LEDGE-299](#) - Update Ledge OE software to DUNFELL

SCHEDULE CHANGES

None

Initiative Progress

1 / 2

Reference Platform Continuous Integration (LEDGE-199)		JIRA >
TSN - 802.1Qbv Scheduler (linux taprio) (LEDGE-208)		JIRA >
XDP - stage 2 (LEDGE-209)		JIRA >
Confidential Computing Consortium sensitive workloads investigation (LEDGE-217)		JIRA >
Akraino Airship deployment CI (LEDGE-218)		JIRA >
RP: Software update and recovery (LEDGE-219)		JIRA >
Reference platform - stage 3 (LEDGE-220)		JIRA >
KubeEdge integration CI (LEDGE-262)		JIRA >

legend
 cancelled
 completed
 non-completed
 blocked
 + added
 - removed
 « more epics (hidden for brevity)

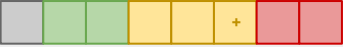
Linaro EDGE (LEDGE)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

2 / 2

TensorFlow Lite on LEDGE RP (LEDGE-263)		JIRA >
TSN device autoconfiguration (LEDGE-265)		JIRA >
Reference platform - stage 4 (LEDGE-275)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

Reference Platform Continuous Integration ([LEDGE-199](#))

- [LEDGE-202](#) - LAVA Reference platform verification
- [LEDGE-281](#) - Measure qemu boot time
- [LEDGE-283](#) - LAVA TI x15 and LEDGE RP

Reference platform - stage 4 ([LEDGE-275](#))

- [LEDGE-299](#) - Update Ledge OE software to DUNFELL

REMAINING WORK FOR THE CYCLE

TSN - 802.1Qbv Scheduler (linux taprio) ([LEDGE-208](#))

- Blocked: [LEDGE-254](#), [LEDGE-255](#), [LEDGE-256](#)

Confidential Computing Consortium sensitive workloads investigation ([LEDGE-217](#))

- Blocked: [LEDGE-273](#), [LEDGE-274](#)

RP: Software update and recovery ([LEDGE-219](#))

- In Progress: [LEDGE-308](#)
- To Do: [LEDGE-241](#)

Reference platform - stage 4 ([LEDGE-275](#))

- In Progress: [LEDGE-121](#), [LEDGE-288](#)
- Blocked: [LEDGE-116](#)
- To Do: [LEDGE-231](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None







SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

10.25 engineer months for 12 remaining planned epics

Initiative Progress

Tiny Linux on M- and R-profile Cores (FDPIC) (GNU-284)		JIRA >
Enable Link-Time Optimizations for AArch64 and AArch32 (GNU-588)		JIRA >
GNU Community Citizenship (GNU-609)		JIRA >
GDB Backlog (GNU-626)		JIRA >
ARMv8.x support in GDB (GNU-653)		JIRA >
Fix Libgomp scalability bottleneck (GNU-655)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed

more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Tiny Linux on M- and R-profile Cores (FDPIC) ([GNU-284](#))

- To Do: [GNU-411](#)

Enable Link-Time Optimizations for AArch64 and AArch32 ([GNU-588](#))

- In Progress: [GNU-572](#), [GNU-625](#), [GNU-659](#)

GNU Community Citizenship ([GNU-609](#))

- In Progress: [GNU-49](#), [GNU-93](#), [GNU-587](#), [GNU-642](#), [GNU-661](#)

GDB Backlog ([GNU-626](#))

- In Progress: [GNU-640](#)

ARMv8.x support in GDB ([GNU-653](#))

- In Progress: [GNU-636](#)

Fix Libgomp scalability bottleneck ([GNU-655](#))

- In Progress: [GNU-573](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

SVE support in GNU Toolchain ([GNU-627](#)) - **OPEN** - relates to:

- [GNU-635](#) - Validate GDB AArch64 SVE general support on real hardware - **OPEN**

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

11.25 engineer months for 15 remaining planned epics

Initiative Progress

LLVM Toolchain Backlog (LLVM-475)		JIRA >
LLVM Code Speed Increase for Cortex-A / Enterprise Workloads (LLVM-477)		JIRA >
LLVM Community Citizenship (LLVM-501)		JIRA >
LLVM Code Size Reduction for Zephyr, mbed and Android (LLVM-502)		JIRA >
Update LLDB to Support ARM Architectures up to 2019 (LLVM-588)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

LLVM Code Speed Increase for Cortex-A / Enterprise Workloads ([LLVM-477](#))

- In Progress: [LLVM-134](#)
- To Do: [LLVM-208](#)

LLVM Community Citizenship ([LLVM-501](#))

- In Progress: [LLVM-480](#), [LLVM-603](#), [LLVM-606](#), [LLVM-614](#), [LLVM-638](#)

LLVM Code Size Reduction for Zephyr, mbed and Android ([LLVM-502](#))

- In Progress: [LLVM-3](#), [LLVM-559](#), [LLVM-607](#), [LLVM-611](#)
- To Do: [LLVM-561](#)

Update LLDB to Support ARM Architectures up to 2019 ([LLVM-588](#))

- In Progress: [LLVM-548](#), [LLVM-550](#), [LLVM-551](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None







SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

18 engineer months for 16 remaining planned epics

Initiative Progress

QEMU ISA Support for A-profile (QEMU-241)		JIRA >
QEMU Maintainership (QEMU-326)		JIRA >
Update Arm KVM support in QEMU (QEMU-350)		JIRA >
ARMv8.x support in Valgrind (QEMU-359)		JIRA >
QEMU support for ARMv8.x-M extensions (QEMU-364)		JIRA >
QEMU Emulation Support for Large ARM Servers (QEMU-399)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

QEMU ISA Support for A-profile ([QEMU-241](#))

- In Progress: [QEMU-317](#), [QEMU-328](#), [QEMU-349](#), [QEMU-378](#)
- To Do: [QEMU-319](#)

QEMU Maintainership ([QEMU-326](#))

- In Progress: [QEMU-65](#), [QEMU-109](#), [QEMU-327](#)

Update Arm KVM support in QEMU ([QEMU-350](#))

- In Progress: [QEMU-354](#), [QEMU-356](#), [QEMU-357](#)

ARMv8.x support in Valgrind ([QEMU-359](#))

- In Progress: [QEMU-361](#), [QEMU-362](#), [QEMU-363](#)

QEMU support for ARMv8.x-M extensions ([QEMU-364](#))

- In Progress: [QEMU-413](#)

QEMU Emulation Support for Large ARM Servers ([QEMU-399](#))

- In Progress: [QEMU-401](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

No planned effort left

Initiative Progress

Toolchain Engineering Infrastructure
([TCWG-3](#))



[JIRA >](#)

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Toolchain Engineering Infrastructure ([TCWG-3](#))

- To Do: [TCWG-1505](#), [TCWG-1516](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Linux Kernel Quality (LKQ)

September 2020

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

14.25 engineer months for 25 remaining planned epics







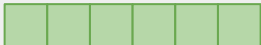

Linux Kernel Quality (LKQ)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

1 / 2

LCG Testing Activities on Android (LKQ-6)		JIRA >
PMWG Board Farm (LKQ-10)		JIRA >
Back port needed fixes to LTS kernels (LKQ-42)		JIRA >
Kernel testing improvements (LKQ-113)		JIRA >
Kernel testing for server and Intel 0-day alternative (LKQ-118)		JIRA >
LKFT Reporting 2.0: Better Scale, Quality, and Efficiency (LKQ-127)		JIRA >
LKFT CI 2.0: Scale builds and decrease build and test turnaround time (LKQ-162)		JIRA >
Linux LTS, Stable, mainline, and next kernels triage (LKQ-184)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)


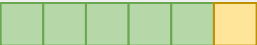

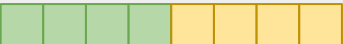
Linux Kernel Quality (LKQ)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

2 / 2

Allow kernel developers to validate their trees with LKFT (LKQ-203)		JIRA >
LKFT Tooling Improvement and Maintenance (LKQ-234)		JIRA >
Test realtime kernel builds (LKQ-257)		JIRA >
Increase LKFT LTS Tests from 20,000 to 40,000 tests per run (LKQ-271)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

LKFT Tooling Improvement and Maintenance ([LKQ-234](#))

- [LKQ-280](#) - Convert LKFT LAVA jobs from LXC to Docker

Increase LKFT LTS Tests from 20,000 to 40,000 tests per run ([LKQ-271](#))

- [LKQ-252](#) - Investigate LTP tracing test cases for LKFT test plan improvement

REMAINING WORK FOR THE CYCLE

PMWG Board Farm ([LKQ-10](#))

- In Progress: [LKQ-7](#), [LKQ-284](#)

Back port needed fixes to LTS kernels ([LKQ-42](#))

- In Progress: [LKQ-12](#)

Kernel testing improvements ([LKQ-113](#))

- In Progress: [LKQ-43](#), [LKQ-44](#), [LKQ-45](#)

Kernel testing for server and Intel 0-day alternative ([LKQ-118](#))

- In Progress: [LKQ-114](#), [LKQ-115](#), [LKQ-116](#)

LKFT Reporting 2.0: Better Scale, Quality, and Efficiency ([LKQ-127](#))

- In Progress: [LKQ-123](#)

Linux LTS, Stable, mainline, and next kernels triage ([LKQ-184](#))

- In Progress: [LKQ-172](#), [LKQ-173](#), [LKQ-174](#), [LKQ-175](#), [LKQ-176](#), [LKQ-177](#), [LKQ-178](#), [LKQ-181](#)

Allow kernel developers to validate their trees with LKFT ([LKQ-203](#))

- In Progress: [LKQ-293](#)

LKFT Tooling Improvement and Maintenance ([LKQ-234](#))

- In Progress: [LKQ-272](#)

Test realtime kernel builds ([LKQ-257](#))

- In Progress: [LKQ-278](#)

Increase LKFT LTS Tests from 20,000 to 40,000 tests per run ([LKQ-271](#))

- In Progress: [LKQ-254](#), [LKQ-258](#), [LKQ-261](#), [LKQ-276](#)

Related Cards

DEPENDENCIES

PMWG Board Farm ([LKQ-10](#)) - **IN PROGRESS** - depends on:

- [STG-1302](#) - Power consumption difference between hikey960 - **DONE**
- [STG-124](#) - Provide new AEP support for mediatek device dictionary for PMWG - **DONE**
- [STG-452](#) - Recable USB in PMWG rack - **DONE**
- [STG-515](#) - PMWG HiKey health check fails multiple times - **DONE**
- [STG-695](#) - AEP for PMWG panda not detected in LAVA - **DONE**
- [STG-744](#) - PMWG dragonboard failing health checks due to fastboot timeout - **DONE**
- [STG-748](#) - Deploy AEP modified HiKey 960s and 6220s in PMWG - **DONE**
- [STG-1075](#) - PMWG: HiKey960-01 needs firmware update - **DONE**
- [STG-1320](#) - PMWG 960 power rating hardware adjustments - **DONE**
- [LSS-64](#) - Enable Android support on PMWG DB820c - **DONE**
- [STG-679](#) - PMWG: HiKey is offline - **DONE**

Kernel testing for server and Intel 0-day alternative ([LKQ-118](#)) - **IN PROGRESS** - depends on:

- [LKQ-117](#) - Investigate adding LKP tests into LKFT - **OPEN**

OTHER RELATED

Integrate license compliance toolkit with LKFT ([LKQ-126](#)) - **OPEN** - relates to:

- [LOC-107](#) - OP-TEE: adopt SPDX - **CLOSED**
- [LSS-856](#) - Prototype SPDX compliance tool in LSS repos - **AWAITING ACCEPTANCE**
- [LSS-748](#) - EAR Compliance for Linaro Software - **AWAITING ACCEPTANCE**

LKFT Reporting 2.0: Better Scale, Quality, and Efficiency ([LKQ-127](#)) - **IN PROGRESS** - relates to:

- [LSS-714](#) - Generic and flexible reporting tool for SQUAD - **IN PROGRESS**

Allow kernel developers to validate their trees with LKFT ([LKQ-203](#)) - **IN PROGRESS** - relates to:

- [LSS-479](#) - General purpose kernel testing service - **AWAITING ACCEPTANCE**

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

No planned effort left

Initiative Progress

September 2020

no data

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Nothing is remaining for the cycle

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

PKCS#11 support in OP-TEE ([LOC-21](#))

- [LOC-9](#) "PKCS#11 - Symmetric Cipher" - **Completed**

Widevine / OEMCrypto v15 for OP-TEE ([LOC-37](#))

- [LOC-33](#) "Widevine - Cherrypick and review patches after big patch series" - **In Progress**
 - In good shape to be completed in this cycle

GP TEE Compliance ([LOC-67](#))

- Planned for next Cycle. Work has started in background.
- [LOC-341](#) "GP TEE Comp: Update GP glue layer in xtest" - **In Progress**
 - Client, Trusted Core Framework, Time and Arithmetic API's are passing now

AOSP Keymaster 3 initiative ([LOC-38](#))

- [LOC-352](#) "KM3 - Stop using hardcoded key validity value" - **In Progress**

REMAINING EFFORT FOR PLANNED EPICS

2.5 engineer months for 4 remaining planned epics

ISSUES / CONCERNS





None

SCHEDULE CHANGES


Summary of changes done in this cycle . The changes in schedule given below have already been highlighted in previous months Health Checks.


- [LOC-20](#) - Page Tag and IV of Trusted Application pages removed
 - Not enough time was left in the cycle to complete this task. Currently in backlog. Other higher priority items like [LOC-67](#) picked up.
- [SWG-416](#) KM3 - GTS failure - testSerialNumberAttestation
 - Moved to Next Cycle as more time spent on Widevine bug fixes
- [LOC-6](#) "PKCS#11 - Basic secure object support" - will continue in next cycle. This task had dependency on completion of other epics not planned for this cycle. It was partially completed and another epic [LOC-9](#) was picked and completed which was not planned for this cycle.


Initiative Progress

Page Tag and IV of Trusted Application pages (LOC-20)		JIRA >
PKCS#11 support in OP-TEE (LOC-21)		JIRA >
ArmV8-A secure side virtualization (LOC-36)		JIRA >
Widevine / OEMCrypto v15 for OP-TEE (LOC-37)		JIRA >
AOSP Keymaster 3 initiative (LOC-38)		JIRA >

legend


 cancelled


 completed

 non-completed

 blocked

 added

 removed

 more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

PKCS#11 support in OP-TEE ([LOC-21](#))

- [LOC-9](#) - PKCS#11 - Symmetric cipher

Widevine / OEMCrypto v15 for OP-TEE ([LOC-37](#))

- [LOC-346](#) - Testing: Integrate ce_cdm compilation for qemu environment

REMAINING WORK FOR THE CYCLE

PKCS#11 support in OP-TEE ([LOC-21](#))

- In Progress: [LOC-6](#)

Widevine / OEMCrypto v15 for OP-TEE ([LOC-37](#))

- In Progress: [LOC-33](#)

AOSP Keymaster 3 initiative ([LOC-38](#))

- In Progress: [LOC-351](#), [LOC-352](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

Armv8-A secure side virtualization ([LOC-36](#)) - **IN PROGRESS** - relates to:

- [SCMI-9](#) - Add FFA mailbox transport layer - **OPEN**

Highlights

ACHIEVEMENTS

Covered in LOC

ISSUES / CONCERNS

None


SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

No planned effort left

Initiative Progress

OP-TEE maintenance (SWG-370)		JIRA >
OP-TEE tax based cycle work (SWG-375)		JIRA >

legend  cancelled  completed  non-completed  blocked  added  removed  more epics (hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

OP-TEE tax based cycle work ([SWG-375](#))

- [SWG-254](#) - Secure- to normal-world upcalls
- [SWG-321](#) - TA heap allocation

REMAINING WORK FOR THE CYCLE

Nothing is remaining for the cycle

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Linux Storage Evolution (LSE)

September 2020

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

5 engineer months for 6 remaining planned epics

Linux Storage Evolution (LSE)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

Linux Storage Evolution ([LSE-52](#))



[JIRA >](#)

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Linux Storage Evolution ([LSE-52](#))

- In Progress: [LSE-3](#), [LSE-24](#), [LSE-25](#), [LSE-26](#), [LSE-27](#), [LSE-53](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

Linux Storage Evolution ([LSE-52](#)) - **IN PROGRESS** - relates to:

- [LOC-190](#) - Secure Storage: RPMB support in OP-TEE - **CLOSED**

Power and Performance (PERF)

September 2020

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None




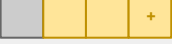
SCHEDULE CHANGES

None







REMAINING EFFORT FOR PLANNED EPICS

15 engineer months for 12 remaining planned epics

Initiative Progress

Thermal Management (PERF-17)		JIRA >
Common DVFS infrastructure for SoCs (PERF-18)		JIRA >
Scheduler Evolution (PERF-19)		JIRA >
Dynamic PM evolution (PERF-20)		JIRA >

legend

 cancelled	 completed	 non-completed	 blocked	 added	 removed	 more epics (hidden for brevity)
--	--	--	--	--	--	--

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Thermal Management ([PERF-17](#))

- In Progress: [PERF-2](#), [PERF-3](#)
- To Do: [PERF-1](#)

Common DVFS infrastructure for SoCs ([PERF-18](#))

- In Progress: [PERF-4](#)

Scheduler Evolution ([PERF-19](#))

- In Progress: [PERF-5](#), [PERF-6](#), [PERF-12](#), [PERF-14](#), [PERF-15](#)

Dynamic PM evolution ([PERF-20](#))

- In Progress: [PERF-11](#), [PERF-22](#)
- To Do: [PERF-8](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

4.7 engineer months for 5 remaining planned epics

System Control and Management Interface (SCMI)

September 2020

[DETAILED CHANGES >](#)

Initiative Progress

SCMI server in secure environment (SCMI-2)		JIRA >
SCMI transport layer (SCMI-8)		JIRA >
Create or Improve SCMI Client (SCMI-12)		JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

SCMI server in secure environment ([SCMI-2](#))

- In Progress: [SCMI-4](#), [SCMI-17](#)

SCMI transport layer ([SCMI-8](#))

- In Progress: [SCMI-15](#)
- To Do: [SCMI-10](#)

Create or Improve SCMI Client ([SCMI-12](#))

- In Progress: [SCMI-3](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

- SCMI server in secure environment ([SCMI-2](#)) - **IN PROGRESS** - relates to:
- [STR-4](#) - VirtIO SCMI and other resource management approaches - **OPEN**
- SCMI transport layer ([SCMI-8](#)) - **TO DO** - relates to:
- [STR-4](#) - VirtIO SCMI and other resource management approaches - **OPEN**

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

No planned effort left

Initiative Progress

September 2020

no data

legend  cancelled  completed  non-completed  blocked  added  removed  more epics (hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Nothing is remaining for the cycle

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

Infrastructure

- Moves along as planned

Toolchain

- Moves along as planned

ISSUES / CONCERNS

None

SCHEDULE CHANGES

Initiated discussions with Arm to see whether Linaro can and should work with helping out on porting activities. Today the Morello project focuses on non-secure side, i.e., Linux kernel, user space and an AOSP lite version. Linaro have suggest to do porting activities for the firmware running on secure side, i.e., TF-A, OP-TEE etc.

REMAINING EFFORT FOR PLANNED EPICS

8 engineer months for 2 remaining planned epics


Initiative Progress


Toolchain support ([MOR-1](#))




JIRA >

legend


 cancelled


 completed

 non-completed

 blocked

 added

 removed

 more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Toolchain support ([MOR-1](#))

- In Progress: [MOR-2](#), [MOR-3](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

No planned effort left

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

3 engineer months for 1 remaining planned epics

Initiative Progress

Implement Optimized VirtIO interfaces ([STR-9](#))



JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Implement Optimized VirtIO interfaces ([STR-9](#))

- In Progress: [STR-5](#)

Related Cards

DEPENDENCIES

There are no dependencies for the scheduled cards

OTHER RELATED

hypervisor boot orchestration (type-1) ([STR-10](#)) - **OPEN** - relates to:

- [DTE-2](#) - System Device Tree - **IN PROGRESS**

Highlights

ACHIEVEMENTS

RPROC-5(Make RPMSG more robust)

- Patchset to support “detach” scenario has been sent out for review on August 26th.

ISSUES / CONCERNS

- Lack of engagement from the community to review patches.

SCHEDULE CHANGES

None

REMAINING EFFORT FOR PLANNED EPICS

8 engineer months for 3 remaining planned epics

Initiative Progress

Increase modularity of Remoteproc/rpmsg subsystems ([RPROC-1](#))



JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

No Epics were completed this time

REMAINING WORK FOR THE CYCLE

Increase modularity of Remoteproc/rpmsg subsystems ([RPROC-1](#))

- In Progress: [RPROC-4](#), [RPROC-5](#), [RPROC-6](#)

Related Cards

DEPENDENCIES

Secure coprocessor support ([RPROC-2](#)) - **OPEN** - depends on:

- [RPROC-1](#) - Increase modularity of Remoteproc/rpmsg subsystems - **TODO**

OTHER RELATED

There are no related cards for the scheduled cards

Highlights

ACHIEVEMENTS

None

ISSUES / CONCERNS

None

SCHEDULE CHANGES







None

REMAINING EFFORT FOR PLANNED EPICS

2 engineer months for 38 remaining planned epics

Initiative Progress







1 / 3

Cloud Integration (LITE-3)		JIRA >
Developer Ease of Use (LITE-4)		JIRA >
Security (LITE-5)		JIRA >
Device/System Model (LITE-44)		JIRA >
Connectivity and Networking (LITE-212)		JIRA >
Trusted Firmware for Cortex M (LITE-247)		JIRA >
Zephyr Member Board Porting (LITE-278)		JIRA >
Implement LAVA testing for Zephyr (LITE-337)		JIRA >

legend
 cancelled
 completed
 non-completed
 blocked
 added
 removed
 more epics (hidden for brevity)

Initiative Progress

2 / 3

<p>Google Cloud with Trusted Firmware integration (LITE-342)</p>		<p>JIRA ></p>
<p>Zephyr 1.14.x LTS and Zephyr 2.x Support (LITE-343)</p>		<p>JIRA ></p>
<p>LITE Member Board Support (2020) (LITE-345)</p>		<p>JIRA ></p>
<p>OpenAMP Development (LITE-346)</p>		<p>JIRA ></p>
<p>Update and Integrate MCUboot (LITE-348)</p>		<p>JIRA ></p>
<p>Embedded Device Tree contributions to Device Tree Super Set (LITE-381)</p>		<p>JIRA ></p>
<p>Implement a Secure Cloud Connectivity API (LITE-402)</p>		<p>JIRA ></p>
<p>Add Advanced MCU Power Management (LITE-403)</p>		<p>JIRA ></p>

legend
 cancelled
 completed
 non-completed
 blocked
 added
 removed
 more epics (hidden for brevity)

Initiative Progress

3 / 3

Support FreeRTOS as an RTOS platform (LITE-404)	JIRA >
Support mbed as a RTOS platform (LITE-405)	JIRA >
AI/ML on Cortex-M Investigation (LITE-449)	JIRA >
Arm V8.1m Extensions Support (LITE-451)	JIRA >

legend



cancelled



completed



non-completed



blocked



added



removed



more epics
(hidden for brevity)

Epic Progress

COMPLETED DURING THE MONTH

Cloud Integration ([LITE-3](#))

- [LITE-291](#) - Implement a IoT application that interacts with Google Cloud on ARMv8m/ARMv7m platform

REMAINING WORK FOR THE CYCLE

Developer Ease of Use ([LITE-4](#))

- In Progress: [LITE-29](#)

Security ([LITE-5](#))

- In Progress: [LITE-283](#), [LITE-333](#), [LITE-435](#)

Trusted Firmware for Cortex M ([LITE-247](#))

- In Progress: [LITE-437](#), [LITE-438](#), [LITE-440](#)

Zephyr Member Board Porting ([LITE-278](#))

- In Progress: [LITE-326](#), [LITE-334](#)

Implement LAVA testing for Zephyr ([LITE-337](#))

- In Progress: [LITE-352](#), [LITE-353](#), [LITE-354](#)

Google Cloud with Trusted Firmware integration ([LITE-342](#))

- In Progress: [LITE-347](#)

Zephyr 1.14.x LTS and Zephyr 2.x Support ([LITE-343](#))

- In Progress: [LITE-279](#), [LITE-338](#), [LITE-376](#), [LITE-384](#), [LITE-429](#), [LITE-452](#), [LITE-460](#), [LITE-461](#)

LITE Member Board Support (2020) ([LITE-345](#))

- In Progress: [LITE-388](#), [LITE-466](#)

OpenAMP Development ([LITE-346](#))

- In Progress: [LITE-410](#), [LITE-416](#)

Update and Integrate MCUboot ([LITE-348](#))

- In Progress: [LITE-283](#), [LITE-333](#), [LITE-349](#), [LITE-406](#), [LITE-421](#), [LITE-426](#)
- To Do: [LITE-327](#)

Add Advanced MCU Power Management ([LITE-403](#))

- In Progress: [LITE-443](#), [LITE-444](#), [LITE-445](#), [LITE-446](#), [LITE-447](#), [LITE-448](#)

Related Cards

DEPENDENCIES

AI/ML on Cortex-M Investigation ([LITE-449](#)) - **TODO** - depends on:

- [AI-42](#) - Product Zephyr & Tensorflow Lite Micro instructions/Howto - **CLOSED**

Arm V8.1m Extensions Support ([LITE-451](#)) - **IN PROGRESS** - depends on:

- [QEMU-413](#) - QEMU support for ARMv8.1-M extensions - **IN PROGRESS**
- [QEMU-364](#) - QEMU support for ARMv8.x-M extensions - **IN PROGRESS**

OTHER RELATED

There are no related cards for the scheduled cards