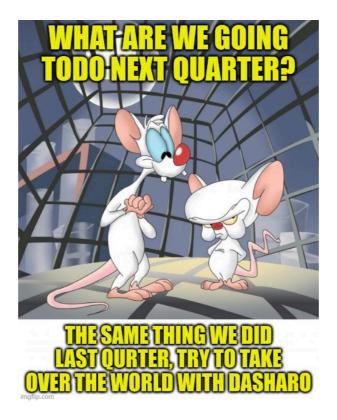


👋 Dasharo User Group #11 🎉 and Developers vPub 0x10 🍻



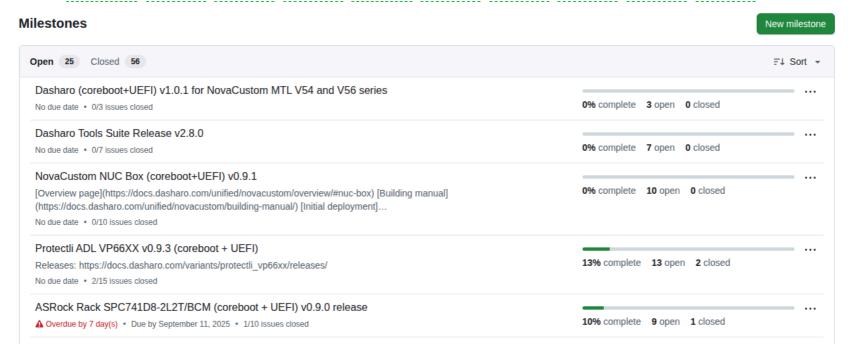


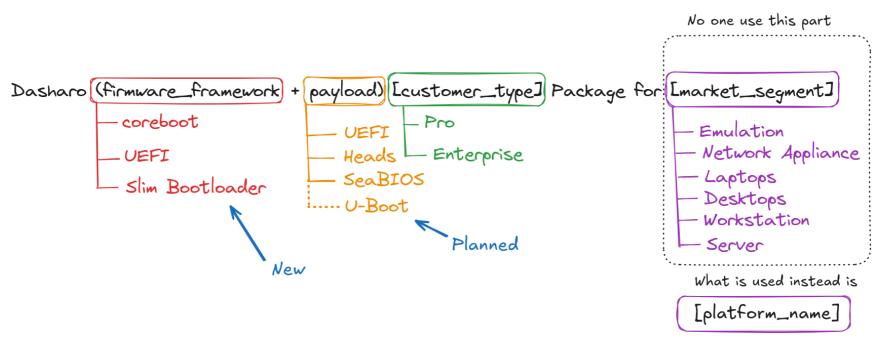




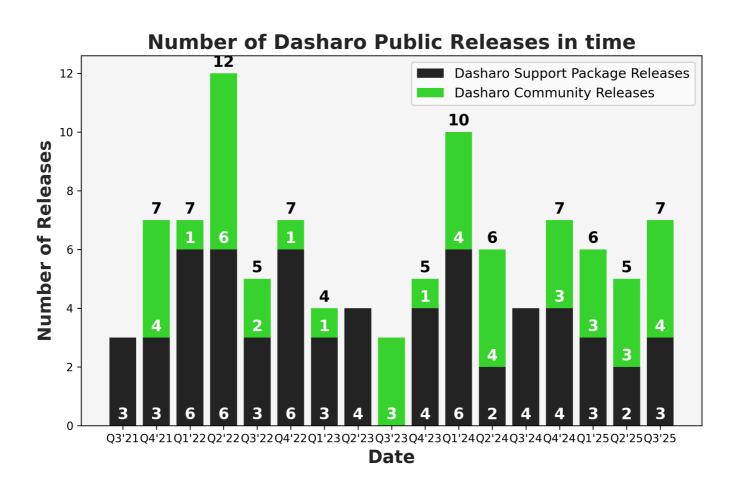
Please note that the roadmap for the Dasharo Community Support Program is subject to change and may not represent final release candidates or end of support dates. This roadmap is intended to provide guidance and direction for the program's development, but is not a guarantee of specific timelines or outcomes. For more information on release candidates or release dates, please contact the Dasharo Team directly.

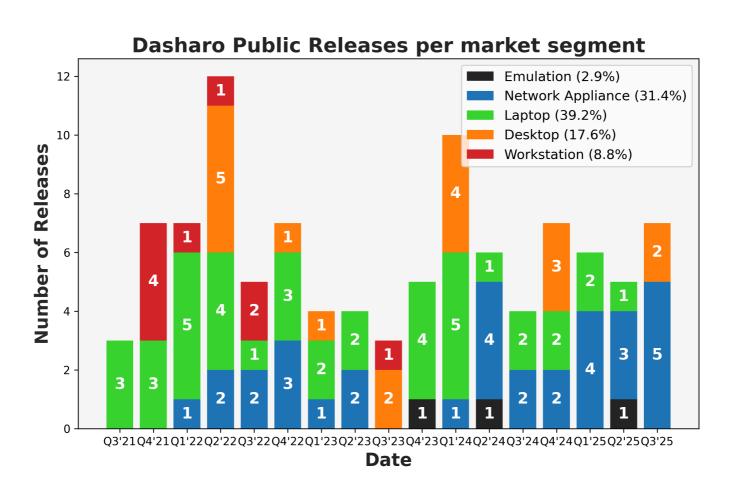
- For those watching this presentation first time we really encourage to look at past videos to get better context and understanding of the format.
 - DUG#10, DUG#9, DUG#8, DUG#7, DUG#6, DUG#5, DUG#4, DUG#3, DUG#2, DUG#1



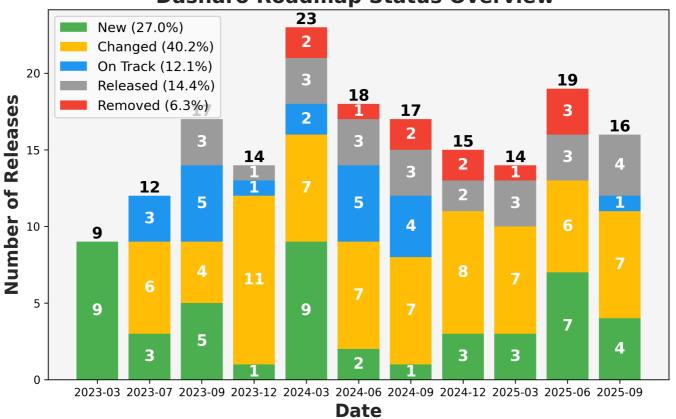


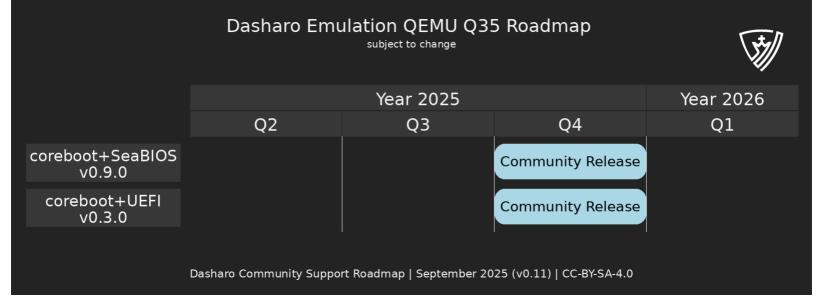
- In short Dasharo Pro Package (DPP)
- Dasharo (coreboot+UEFI) Pro Package for MSi Z690-A
- Dasharo (coreboot+Heads) Pro Package for NV41
- Dasharo (Slim Bootloader) Enterprise Package for Odroid-H4





Dasharo Roadmap Status Overview





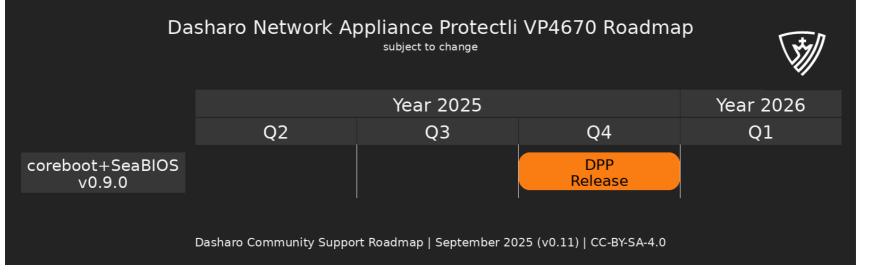
- coreboot+SeaBIOS keep waiting for its prime time, it is connected with transition to OSFV, which we are
 very hesitant to do because it is quite a lot of work and we have other projects
- GitHub Milestone Link to QEMU Q35 (coreboot+SeaBIOS) v0.9.0. No progress
- GitHub Milestone Link to QEMU Q35 (coreboot+UEFI) v0.3.0 which potentially could be scheduled this year. 62% completed

Dasharo Network Appliance PC Engines apu2/3/4/6 Roadmap

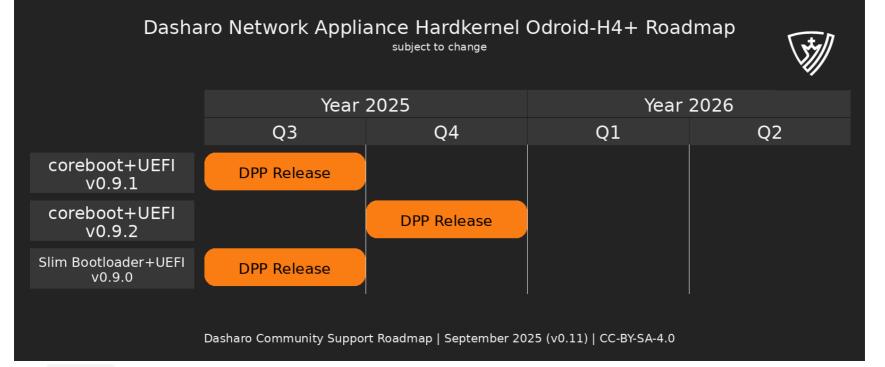


				*//
		Year 2026		
	Q2	Q3	Q4	Q1
coreboot+SeaBIOS v25.09.00.01			DPP Release	
coreboot+UEFI v0.9.1			DPP Release	
	Dasharo Community Suppor	rt Roadmap September 20	25 (v0.11) CC-BY-SA-4.0	'

- v25.06 was replaced with v25.09 release. It is planned for EOM.
- After last vPub there was extensinve discussion about Dasharo Patchqueue Initiative.
- v25.09.00.01 is 12% completed. GitHub Milestone Link
- v0.9.1 is 11% completed. GitHub Milestone Link



- We lack of resources for this release, because of that it is last time we move this release forward and next time we will remove it.
- Outstanding issues:
 - Intel TXT doesn't work on VP4670 closed as invalid.
 - Hangs during microcode update it was identified as kernel issue and needs testing.
- GitHub Milestone Link it is 0% completed.



- v0.9.1 was released on time.
- First release form Dasharo (Slim Bootloader+UEFI) with <u>Slim Bootloader</u> as firmware framework was added. The main goal of supporting new framework are new courses in Pace Enterprise Training family.
- As Odroid-H4 is our platform of choice for PET we plan to continue development and new releases. On the roadmap is v0.9.2

Dasharo (coreboot+UEFI) for ODROID-H4 SBOM

- Dasharo coreboot fork based on 24.12 revision b8e6b3eb
- Dasharo EDKII fork based on edk2-stable202502 revision 91a7a092
- Dasharo iPXE fork based on 2025.03 revision 6c7068fc
- Intel Flash Descriptor version v1.1
 - support for Intel Top-Block Swap feature
 - Increased top swap size from 256KB to 512KB for Slim Bootloader
 - thanks to Top-Block Swap Slim Bootloader redundancy works as expected

https://docs.dasharo.com/variants/hardkernel_odroid_h4/releases/#v091-2025-09-03

What is inside?

Added

- Support for the Hardkernel ODROID H4 Ultra device
- Support for Net Card 2 module
- Capsule Update integration
- In-Band ECC option
- Quiet and fast boot option
- ME disable option
- Boot Guard status information to UEFI setup menu
- Improved measured boot support
- Microsoft Option ROM UEFI CA to Secure Boot DB
- Check for flash descriptor writability when exposign HAP disable option

Changed

- VBT file to fix graphical output in firmware
- Flash descriptor updated to v1.1 (see SBOM)
- Owner GUID of Secure Boot DB and KEK to Microsoft recommended values
- Updated DBX to 2025-06-13

Fixed

- S3 sleep too short on ODROID H4 Plus
- Can't delete signature of enrolled EFI file from DB as it's not shown
- Dismissing a pop-up in UEFI payload caused instant booting
- Recovery of damaged variable storage causing random settings reset

Dasharo (Slim Bootloader+UEFI) for ODROID-H4 SBOM

- Dasharo Slim Bootloader fork based on d888673acdc4cf92bb5ebf4d8e73e66222654596 revision
 00796934
- Dasharo EDKII fork based on edk2-stable202502 revision e8cd1856

https://docs.dasharo.com/variants/hardkernel_odroid_h4/releases/#v091-2025-09-03

What is inside?

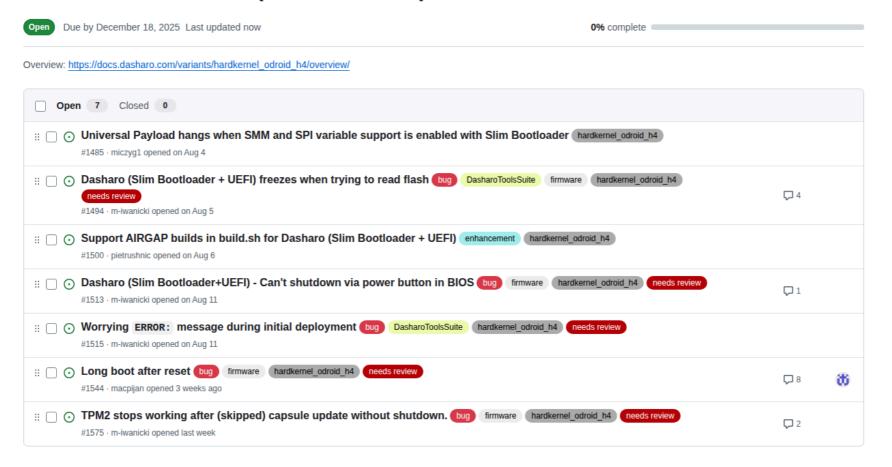
Added

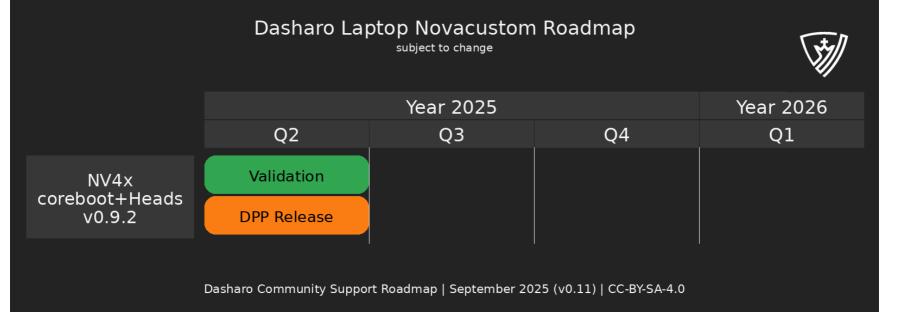
- Initial support for the Hardkernel ODROID H4 device, based on Intel Alder Lake N
- UEFI compatible interface
- USB boot support
- NVMe boot support
- UEFI Shell
- Ubuntu LTS booting
- Serial port console redirection
- TPM Measured Boot
- Verified Boot
- Measured Boot

Known issues

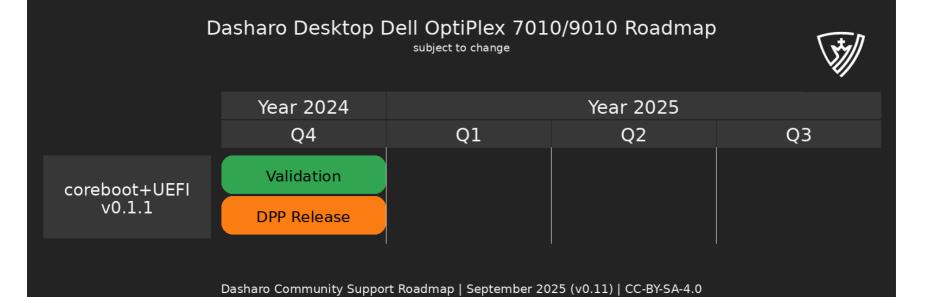
- Universal Payload hangs when SMM and SPI variable support is enabled
- Dasharo (Slim Bootloader+UEFI) Can't shutdown via power button in BIOS
- Dasharo (Slim Bootloader+UEFI) freezes when trying to read flash

Hardkernel Odroid-H4 (coreboot+UEFI) v0.9.2





■ This year we have no other plans for releasing Dasharo (coreboot+Heads). Next release will be planned for 2026 when time will come.



- TrenchBoot Support was released
- Exactly the same situation as with Protectli VP4670.
- No release plans at this point.



- Introduction of non-LTS releases (no extensive testing, just minimal regression).
- EOL for Dasharo support for MSI PRO Z690-A is 2026 EOY.
- This year there are two upcoming releases: DPP and DCR.
- Support will most likely end next year unless there will be enough renewal to support next release, but
 since that hardware is no longer sold we are concern it would not be the case.

Non-LTS concept

- LTS Long Term Stable
- So far every release get through extensive test cycle (hundreds of tests), what took a lot of time and could cost more than 50% of the whole release cost.
- For stable platforms with fixed set of known issues, there is no need for LTS test cycle.
- No question about, non-LTS will not come with the same guarantees.

Test name	▼	Test ID	₩	Result	▼.	Comments
F9 resets Auto Boot Time-out to default value		BMM002.00	1	PASS		
Verify the firmware version		DMI002.201		PASS		
Verify the firmware product name		DMI003.201	_	PASS		
DTS option is available and works correctly		PXE004.003	1	PASS		
Verify if no unexpected boot errors appear in Linux logs (Ubuntu)		STB002.201	L	PASS		
Verify TPM Version (Ubuntu)		TPM002.20	1	PASS		
USB keyboard detected in FW		USB002.00	1	PASS		

- Set or running tests depends largely on platform capabilities and hardware configuration.
 - In case of previous release it was 161 tests
 - Full test cycle takes Senior Firmware Engineer over week of work.
 - Minimal regression which we run has just 6 tests and takes up to half a day.
- This is practical triage of introducing upcoming concepts:
 - non-LTS releases with minimal regression
 - "something-in-between"
 - LTS regular releases with full test cycle

Dasharo (coreboot+UEFI) for Z690-A SBOM

- Dasharo coreboot fork based on 24.12 revision fecb8be2 (from 24.02.01)
- Dasharo EDKII fork based on edk2-stable202502 revision 1c50dad8 (from edk2-stable202402)
- iPXE based on 2025.03 revision 6c7068fc

https://docs.dasharo.com/variants/msi_z690/releases/#v115-2025-09-18

What is inside?

Added

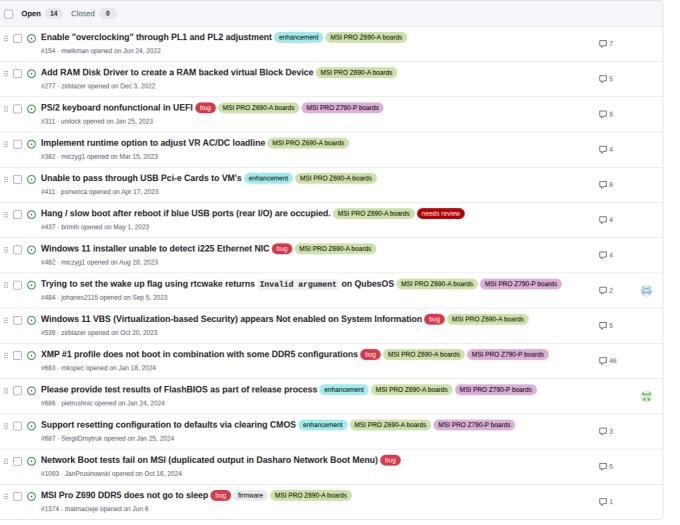
- Improved measured boot support
- Microsoft Option ROM UEFI CA to Secure Boot DB
- Check for flash descriptor writability when exposing HAP disable option

Changed

- Rebased coreboot repository to 24.12
- Rebased edk2 repository to edk2-stable202502
- Owner GUID of Secure Boot DB and KEK to Microsoft recommended values
- Updated DBX to 2025-06-13

Known Issues

- XMP1 profile does not boot in combination with some DDR5 configurations
- Windows 11 installer unable to detect i225 Ethernet NIC
- Cannot wake from suspend via RTC on QubesOS
- Windows 11 VBS (Virtualization-based Security) appears Not enabled on System Information
- Capsule update signing is not enforced
- And more included in future milestones.





■ The same situation as with Z690-A.



Unfortunately, we have no new plans.



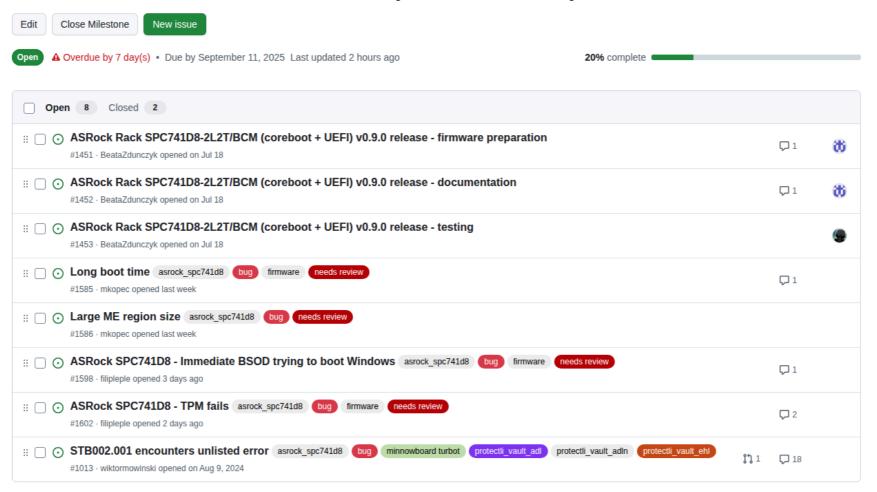
- Finally we can put on our roadmap relatively modern server platform.
- We gratefully acknowledge the https://os.itec.kit.edu (Operating Systems Group) at Karlsruhe Institute of Technology (Fabian Meyer, Felix Zimmer, Yussuf Khalil) for their contribution in initiating the coreboot port for this platform and supporting open-source firmware development.
- Without Yussuf team delivering this release so fast would not be possible.
- Github Milestone Link 20% complete.





https://shop.3mdeb.com/product-category/dasharo-supported-hardware/

ASRock Rack SPC741D8-2L2T/BCM (coreboot + UEFI) v0.9.0 release





- This is second big announcement from us. We plan to deliver AMD OpenSIL based Dasharo for Gigabyte
 MZ33-AR1 in Q4'25.
- Timeline is not yet very solid, because this is new and complex project (server, new silicon initialization code).
- We publishing our results on 3mdeb blog.





https://shop.3mdeb.com/product-category/dasharo-supported-hardware/

Dasharo Security Bulletin (DSB)

- Launching Dasharo Security Bulletin (DSB): clear, actionable advisories for Dasharo-supported platforms and firmware.
- Format identical to Xen Security Advisories (XSA) and Qubes Security Bulletins (QSB): summary, impact,
 affected versions, fixes/mitigations, timeline, credits, references.
- Coordinated disclosure with upstreams/vendors; embargoes when needed; publish when fixes/mitigations are ready.
- Trust and verifiability: PGP-signed advisories, permanent web archive; CVE IDs and links included when available.
- Numbering and cadence: DSB-YYYY-NN; released as needed (not on a fixed schedule).
- Distribution: Dasharo website with archive and RSS/Atom, announcement mailing list, GitHub security advisories, and community channels.
- Community actions: subscribe, verify signatures and apply updates; report vulnerabilities via our security
 contact (see security.txt).
- Security reports link: https://docs.dasharo.com/security/



CHANGELOG

- (NEW) QEMU Q35 v0.3.0 planned for Q4'25
- (NEW) QEMU Q35 v0.2.1 planned for Q2'25
- (RELEASED) QEMU Q35 v0.2.1 planned for Q2'25
- (CHANGED) QEMU Q35 v0.9.0 planned for Q2'25
- (RELEASED) PC Engines apu2/3/4/6 Dasharo (creboot+SeaBIOS) v24.08.00.01 planned for Q4'24
- (REMOVED) PC Engines apu2/3/4/6 Dasharo (coreboot+SeaBIOS) v25.03.00.01 planned for Q3'25
- (REMOVED) PC Engines apu2/3/4/6 Dasharo (coreboot+SeaBIOS) v25.12.00.01 planned for Q2'25
- (NEW) PC Engines apu2/3/4/6 Dasharo (coreboot+SeaBIOS) v25.06.00.01 planned for Q2'25
- (CHANGED) PC Engines apu2/3/4/6 Dasharo (coreboot+UEFI) v0.9.1 planned for Q2'25
- (CHANGED) Protectli VP4670 planned for Q2'25
- (CHANGED) Hardkernel Odroid-H4 Dasharo(coreboot+UEFI) v0.9.1 planned for Q2'25
- (RELEASED) NV4x Dasharo (coreboot+Heads) v0.9.2 planned for Q1'25
- (REMOVED) NV4x Dasharo (coreboot+SeaBIOS) v1.7.2.x planned for Q1'25
- (NEW) MSI Z690-A v1.1.5 planned for O3'25
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- (CHANGED) MSI Z690-A v1.2.0 planned for Q2'24
- (NEW) MSI Z690-A v1.3.0 planned for Q3'25
- (NEW) MSI Z790-A v0.9.3 planned for Q3'25
- (CHANGED) MSI Z790-A v1.0.0 planned for Q2'24
- (NEW) MSI Z790-A v1.1.0 planned for Q3'25

- (CHANGED) QEMU Q35 v0.9.0 planned for Q1'25
- (NEW) PC Engines apu2/3/4/6 Dasharo (coreboot+SeaBIOS) v25.03.00.01 planned for Q3'25
- (NEW) PC Engines apu2/3/4/6 Dasharo (coreboot+SeaBIOS) v25.12.00.01 planned for Q2'25
- (CHANGED) PC Engines apu2/3/4/6 Dasharo (coreboot+UEFI) v0.9.1 planned for Q1'25
- (CHANGED) PC Engines apu2/3/4/6 Dasharo (creboot+SeaBIOS) v24.08.00.01 planned for Q4'24
- (CHANGED) Protectli VP4670 planned for Q1'25
- (RELEASED) Hardkernel Odroid-H4 Dasharo(coreboot+UEFI) planned for Q4'24
- (NEW) Hardkernel Odroid-H4 Dasharo(coreboot+UEFI) v0.9.1 planned for Q2'25
- (RELEASED) V56TU Dasharo (coreboot+Heads) v0.9.0 planned for Q4'24
- (CHANGED) NV4x Dasharo (coreboot+Heads) v0.9.2 planned for Q1'25
- (REMOVED) NV4x Dasharo (coreboot+SeaBIOS) v1.7.2.x planned for Q1'25
- (RELEASED) Dell OptiPlex 7010/9010 v0.1.1 planned for Q4'24
- (CHANGED) MSI Z690-A v1.2.0 planned for Q1'24
- (CHANGED) MSI Z790-P v1.0.0 planned for Q1'25
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- (NEW) QEMU Q35 v24.08.00.01 planned for Q1'25
- (REMOVED) PC Engines apu2/3/4/6 Dasharo (creboot+SeaBIOS) legacy planned for Q4'24
- (CHANGED) PC Engines apu2/3/4/6 Dasharo (coreboot+UEFI) v0.9.1 planned for Q4'24
- (CHANGED) PC Engines apu2/3/4/6 Dasharo (creboot+SeaBIOS) v24.08.00.01 planned for Q3'24
- (CHANGED) Protectli VP4670 planned for Q4'24
- (REMOVED) MinnowBoard Turbot Dasharo(coreboot+UEFI) planned for Q3'24
- (CHANGED) Hardkernel Odroid-H4 Dasharo(coreboot+UEFI) planned for Q4'24
- (NEW) V56TU Dasharo (coreboot+Heads) v0.9.0 planned for Q4'24
- (NEW) NV4x Dasharo (coreboot+Heads) v0.9.2 planned for Q1'25
- (CHANGED) NV4x Dasharo (coreboot+SeaBIOS) v1.7.2.x planned for Q1'25
- (CHANGED) Dell OptiPlex 7010/9010 v0.1.0 planned for Q3'24
- (RELEASED) MSI Z690-A v1.1.4 planned for Q4'24
- (CHANGED) MSI Z690-A v1.2.0 planned for Q4'24

- (RELEASED) MSI Z790-P v0.9.2 planned for Q4'24
- (CHANGED) MSI Z790-P v1.0.0 planned for Q4'24

