Dasharo Features

Dasharo User Group #1

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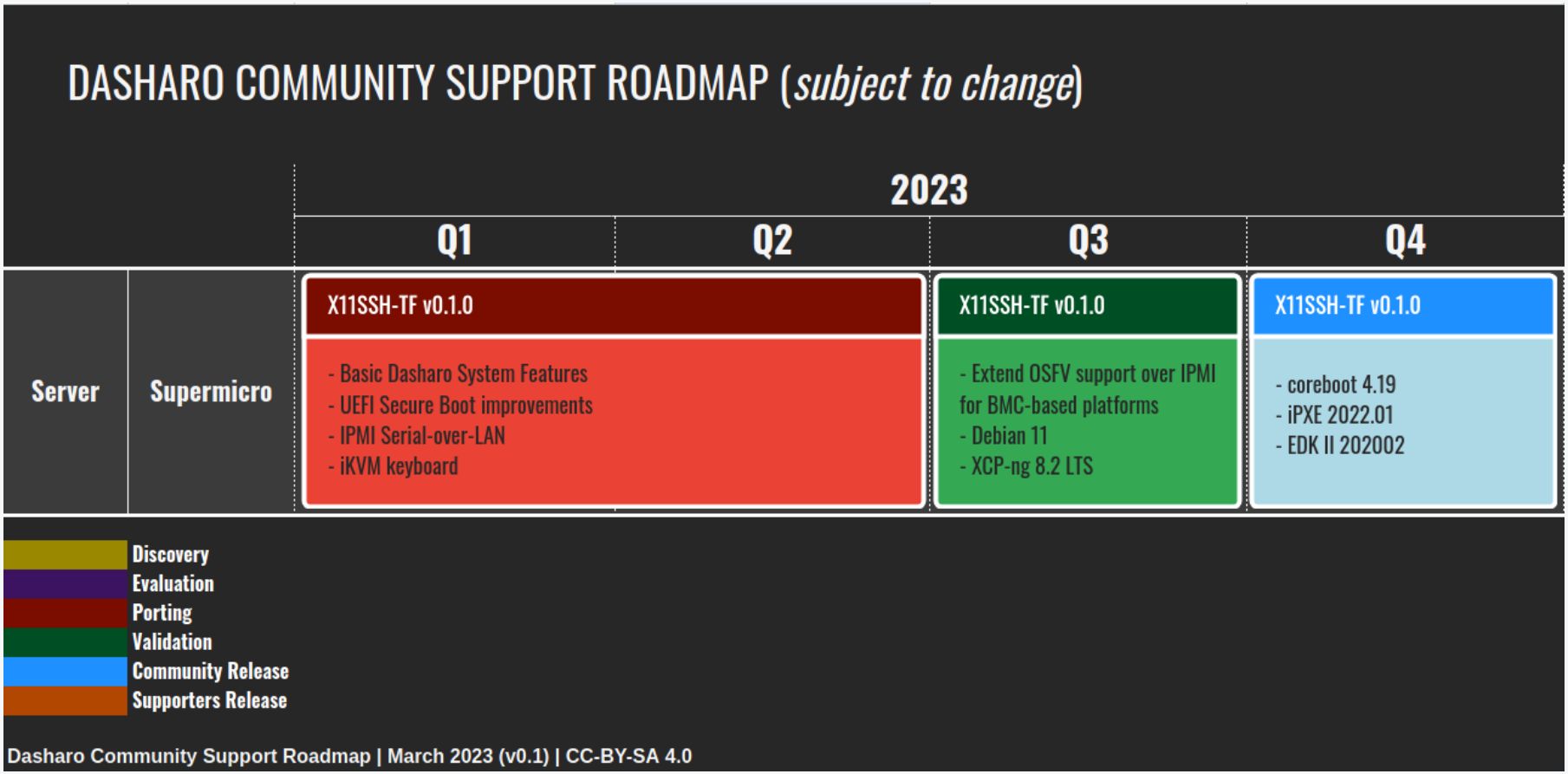
What is this presentation gonna be about?

Current status and feature plans for:

- Supermicro X11SSH (server)
- Dell OptiPlex 7010/9010 (desktop)
- Dell Precision T1650 (desktop/NAS)
- MSI Z690-A/Z790-P (desktop)

DASHARO

Dasharo Server Roadmap



v0.1.0 Community Release

Current status: **Porting**

- We have a working release candidate
- X11SSH-TF installed in the 3mdeb lab
- Basic Dasharo System Features and UEFI boot included
- iKVM keyboard does not want to work in the firmware, but does in OS (needs debugging)
- SOL works, Debian 11 checked and working
- **Sh*t tons** of ways of flashing with SUM, SMCIPMITool, flashrom, BMC GUI but **only BMC GUI** is working properly (and yet not always)...
- iKVM keyboard fix and some documentation is needed to switch to **Validation**

What's next? v0.2.0

Features ideas for next release:

- UEFI IPMI drivers for OOB management, SMBus ASF, BMC event logging?
- OpenBMC port? There are Supermicro open-source packages which resemble a BMC project (to be analyzed)

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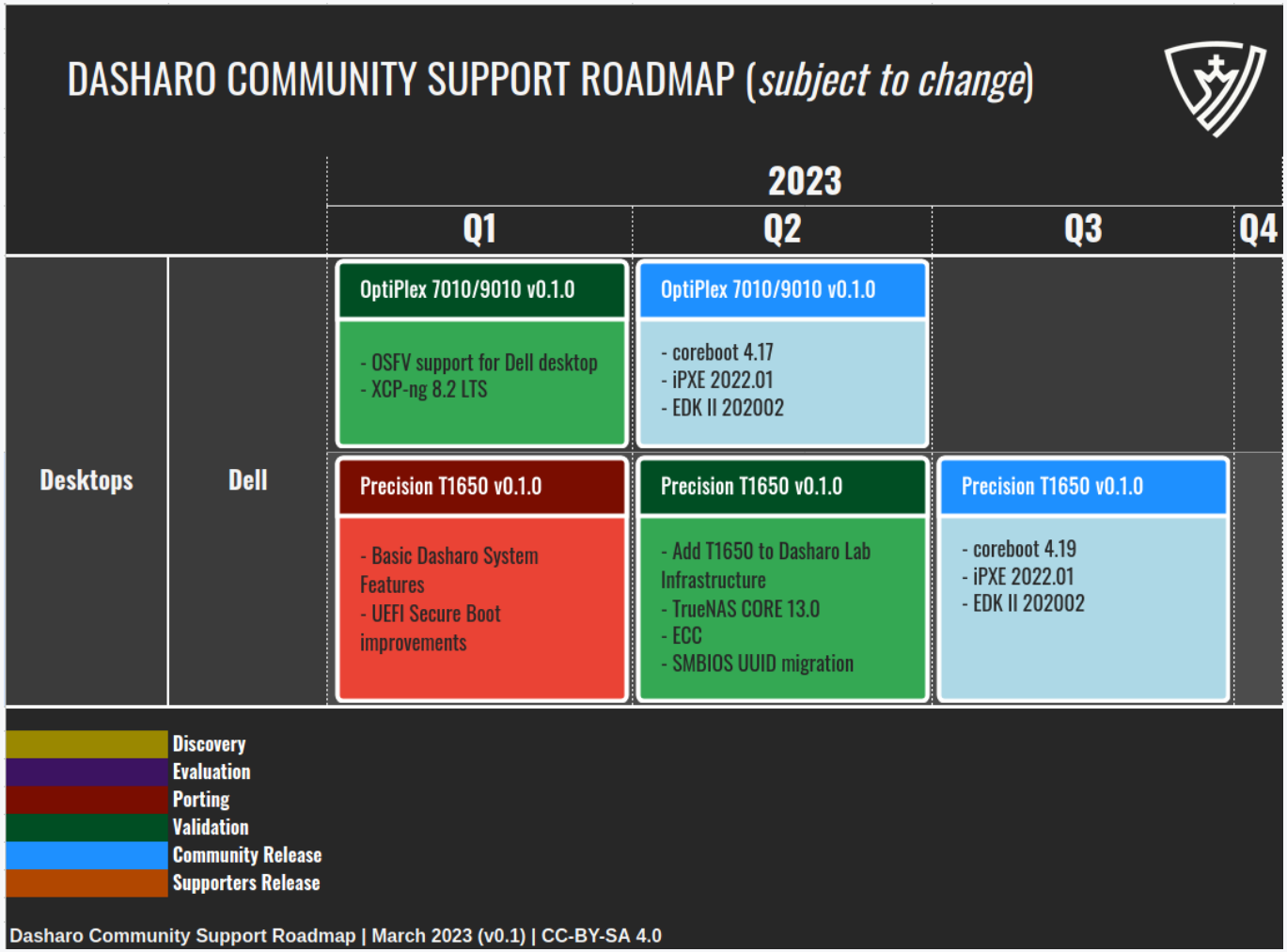
Dasharo Desktop Roadmap



v0.1.0 Community Release

Current status: **Validation**

- We have a working release candidate for quite some time
- Basic Dasharo System Features and UEFI boot included
- SMBIOS UUID and serial number migration
- Need to perform testing to finally switch to **Release** phase
- GitHub v0.1.0 milestone
- GitHub Project

What's next? v0.2.0

Feature ideas for next release:

- We don't know yet :)
- Ideas welcome
- Most likely inclusion of features developed for other platforms

v0.1.0 Community Release

Current status: **Porting**

- Board support available in upstream coreboot
- Nothing started yet so we need to prepare everything:
  - Whole documentation
  - Dasharo System Features enabling
  - installation in 3mdeb lab
- GitHub v0.1.0 milestone
- GitHub Project

What's next? v0.2.0

Feature ideas for next release:

- Precision T1650 would be specifically intended for NAS use due to ECC RAM, so it needs a runtime option to configure platform behavior after power failure
- Most likely inclusion of features developed for other platforms

Now the ones that you were probably longing for...

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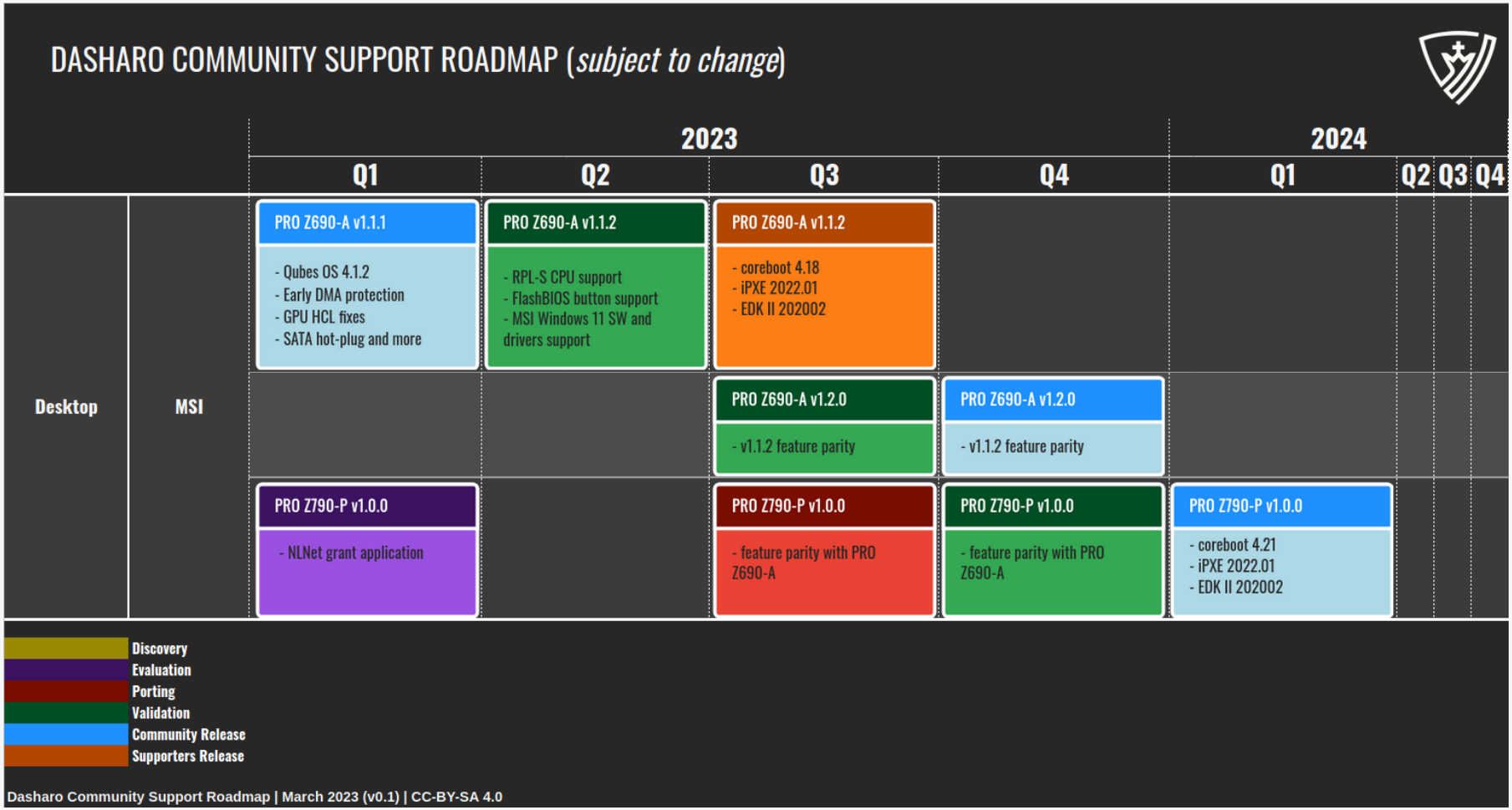
Dasharo Desktop Roadmap



v1.1.2 - Supporters Release

Current status: **Validation**

- RPL-S CPU support in review upstream (not tested yet)
- MSI ACPI identification in Windows 11 to install MSI software and drivers automatically (done)
- ACPI interrupt routing fix (done) - my dual dGPU setup pays off...
- Fan control (almost finished) - few weekends gone, just like that... 😅
- FlashBIOS button (in progress) - yesss...
- GitHub v1.1.2 milestone
- GitHub Project

Features also planned for this release:

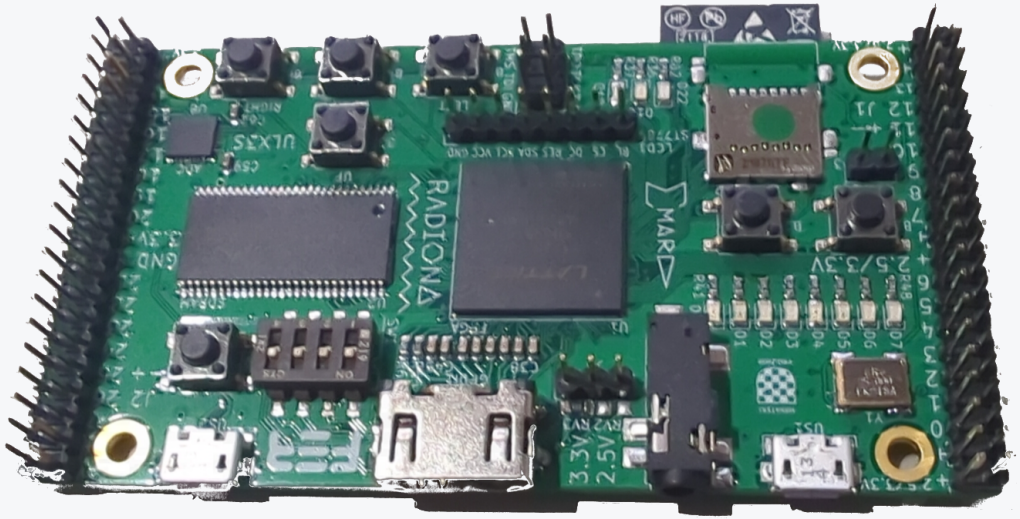
- Add option to skip PS/2 keyboard detection to make all pS/2 keyboard work hopefully (legacy stuff always problematic)
- Runtime options for: PL1/PL2, VR loadline, memory XMP profile selection

v1.2.0 - Community Release

- All features from v1.1.2 for everyone
- What else? We will see 😀

MSI Z690-A - FlashBIOS button

- Decided to go with SpiSpy
- Inspired by the famous open-source activist, `programmer, photographer and frequent hacker`: Trammel Hudson
- https://trmm.net/Spispy/



MSI Z690-A - FlashBIOS button

- There is one interesting feature in SpiSpy - TOCTOU mode!
- It can hijack SPI cycles from the chipset and respond with data present on the SpiSpy SDRAM (programmed with our custom firmware binary)
- Nobody said it will not hijack SPI cycles coming from 3rdparty chip responsible for FlashBIOS functionality!
- Plan: gather a trace of the FLashBIOS recovery process and determine vendor firmware structures responsible for binary validation
- Goal: Make FlashBIOS feature work with Dasharo builds (v1.1.2 or v1.2.0?)

v1.0.0 - Community Release

Current status: **Discovery (Waiting for funds to start Evaluation)**

- Around 23'Q4 or 24'Q1!? I know.. I know... So frickin' late... 😢
- The more supporters we have the quicker we may satisfy the community needs!

Open questions

- Is MSI EZ LED debug support of any importance?
- What options do you see as most important to be implemented in near future?

Q&A

Thank you