



OPEN FIRMWARE SOURCE CONFERENCE

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01 - 03

AMD's Journey towards Open Source OpenBMC

SPEAKER

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Agenda

Rationale

Introduction

Proof of Concept

Status & Next Steps

Call to Action



Rationale



OpenBMC

Align with Industry direction of open-source firmware stacks

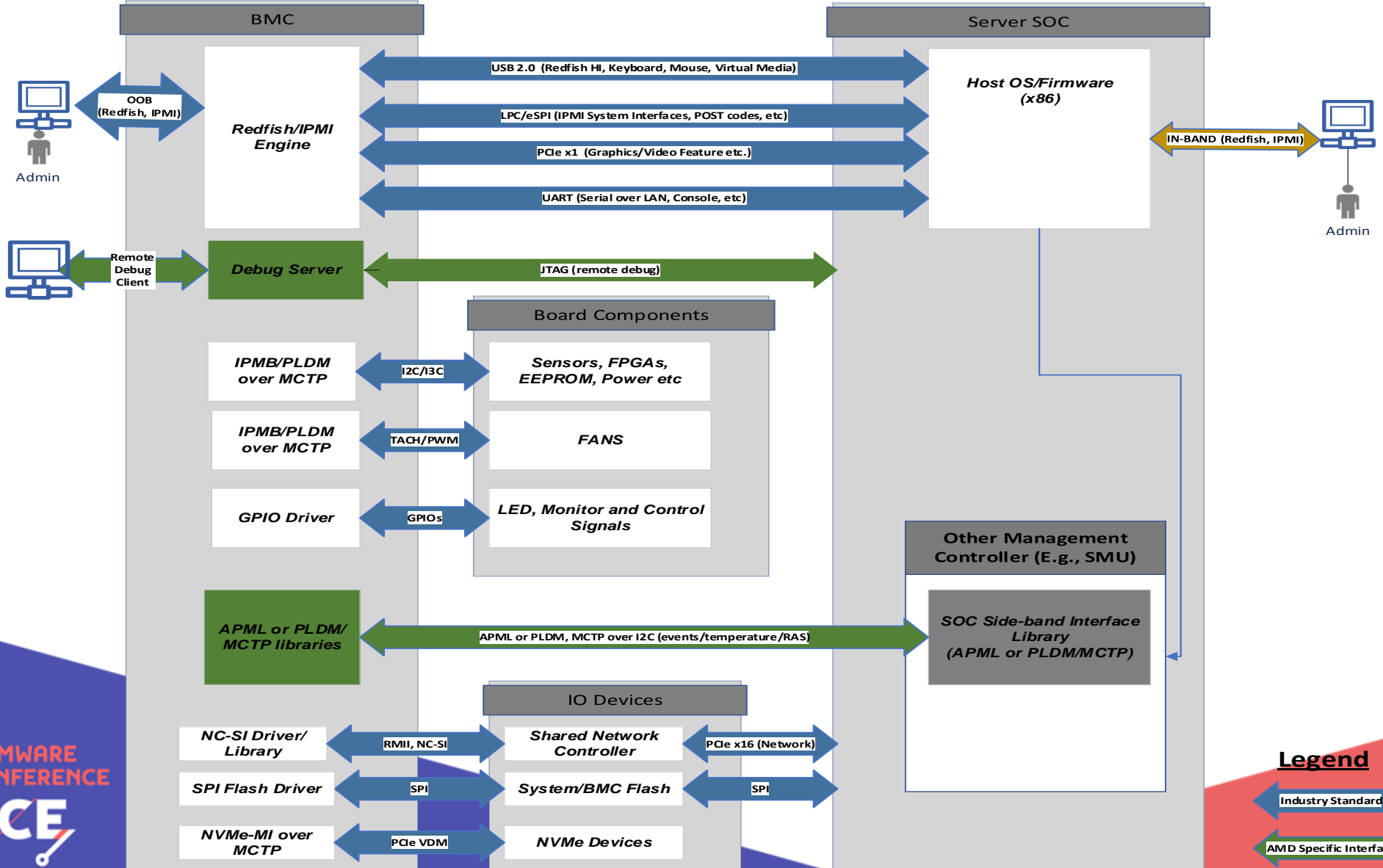
Collaborate with partners, customers to support AMD specific system interfaces

Customers, partners, end users value standardized common manageability capabilities with scope for customizations

Leverage industry standard management specifications to avoid fragmentation

To be a good open-source citizen

Introduction



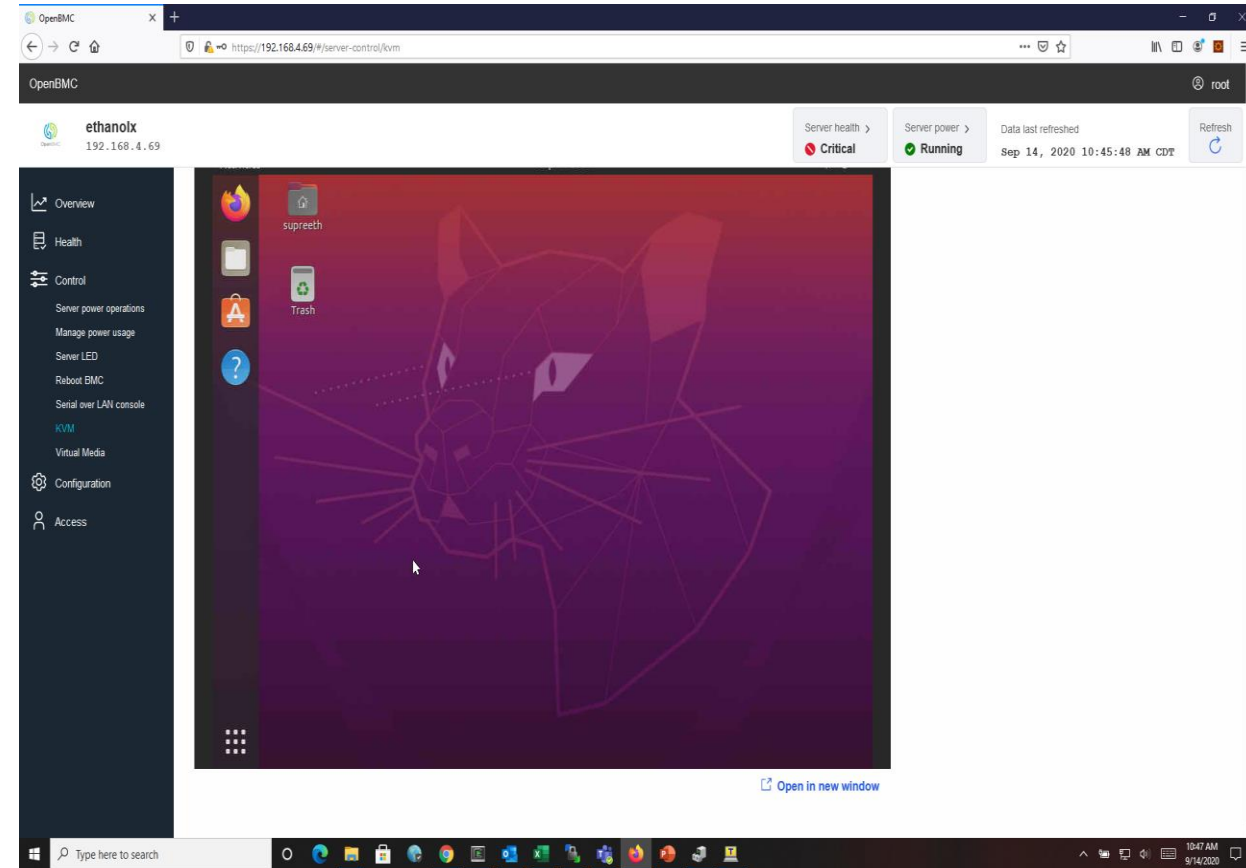
Legend

- Industry Standard:** Represented by a blue double-headed arrow. Note: Porting Effort Required based on Platform Design.
- AMD Specific Interface:** Represented by a green double-headed arrow. Note: AMD up-streamed sample code through OpenBMC.
- Non Standard Interface:** Represented by a yellow double-headed arrow. Note: BMC Network access disabled, Management via Host.

Proof of Concept

OpenBMC Upstream Repository

- <https://github.com/openbmc/openbmc/tree/master/meta-amd>
- OpenBMC enablement on AMD EPYC Ethanol platform
- 22 patches up streamed into meta-amd repository
- Device tree for AMD EPYC Ethanol platform up streamed to Linux kernel: <https://github.com/torvalds/linux/blob/master/arch/arm/boot/dts/aspeed-bmc-amd-ethanolx.dts>
- Device tree for AMD EPYC Daytona platform to be up streamed soon



Status & Next Steps

Features Planned

- Redfish Compliance
- IPMI v2.0 Compliance
- Remote Debug
- APML SB-RMI kernel driver
- CPU Power management
- RAS

Features Implemented

Host management: Power, LEDs, Events

Code Update Support for BMC images

Web-based user interface

REST interfaces

D-Bus based interfaces

SSH

User management

Advanced Platform Link Management (APML)

- Side-band Temperature Sensor Interface (SB-TSI) framework
- APML SB-TSI (CPU temperature sensor information) IPMI/Redfish enablement

APML SB-RMI framework using ESMI library

Keyboard, Video Mouse(KVM) enablement

Virtual Media

Call to Action



Collaborate with AMD to help create robust AMD interfaces enablement for OpenBMC



Participate in Redfish, PMCI workgroups (DMTF) to influence industry standard interface specification



Help review AMD customizations here: <https://gerrit.openbmc-project.xyz/admin/repos/openbmc/meta-amd>

Review feedback is greatly appreciated



A Big Shout out to Twitter team's help in navigating to avoid known pitfalls and providing valuable feedback



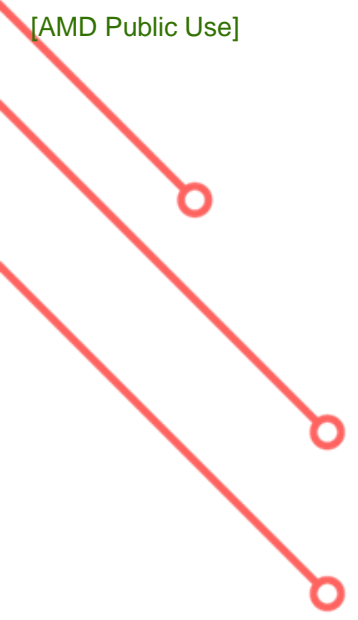
For technical discussions, Mail: openbmc@lists.ozlabs.org with the subject "meta-amd"



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AMD





Thank you