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Intel® Cyclone® V-Based RunBMC Solution Update



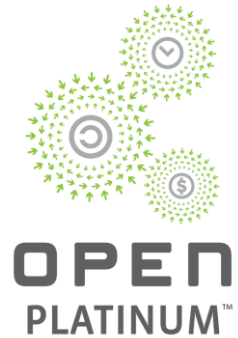
OCP
GLOBAL
SUMMIT

NOVEMBER 9-10, 2021

Intel® Cyclone® V-Based RunBMC Solution Update

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Agenda

- Background
- Module v2 Updates
- Live Demo
- Design Contribution
- Call to Action



HW MANAGEMENT

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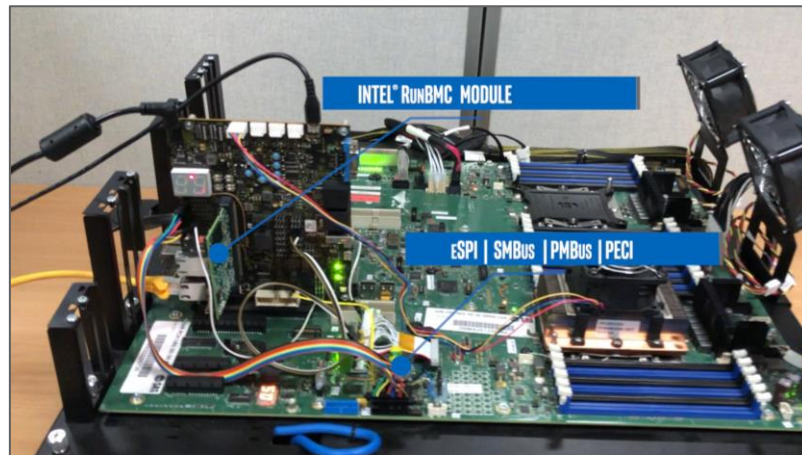


Background

- First prototype and demo presented at OCP Global Summit 2020

The Prototype

RunBMC + OpenBMC + Platform Root of Trust on FPGA SoCs



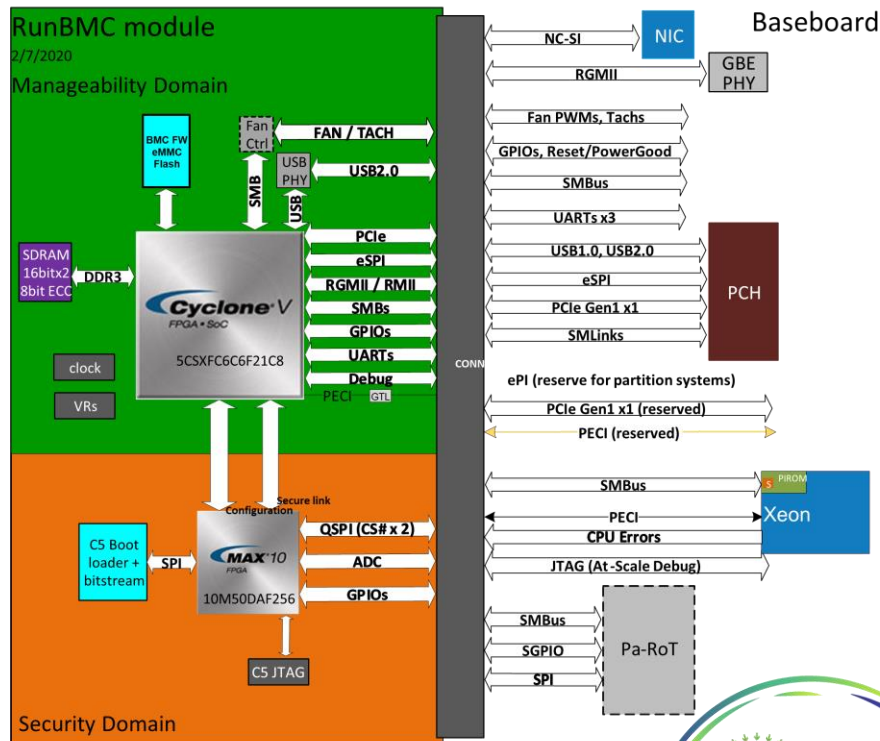
- Developed Intel® Cyclone® V RunBMC Module v2 with RunBMC 1.4.1 Specification compatibility

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Re-cap: Cyclone[®] V Based RunBMC

- Form factor Large (50 x 70mm)
- 12 Layer PCB
- Manageability domain on Cyclone[®] V
- Security domain on Max[®] 10



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Module v2 Updates

Updated Module v2 Design (Fab2):

- VGA support added
- 2nd USB support added
- Design fixes
 - PCB thickness fix
 - Spec compatibility improved



Fab1



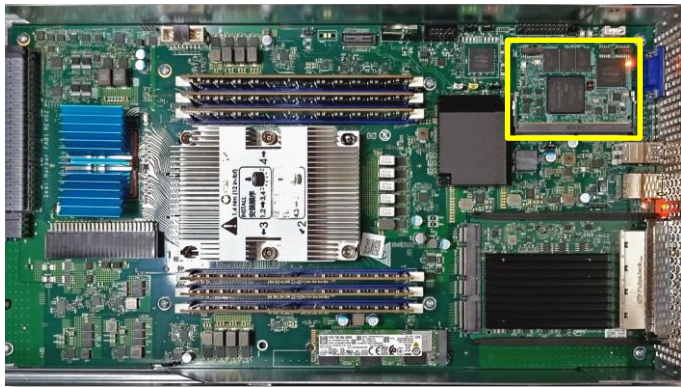
Fab2

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Live Demo in Experience Center

Cyclone® V Module v2 (Fab2) Demo:

- Intel CascadeLake RunBMC compatible prototype platform
- OpenBMC FW support on Cyclone® V RunBMC Module
- Platform Boot, KVM, SOL, Redfish, Telemetry



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Design Contribution

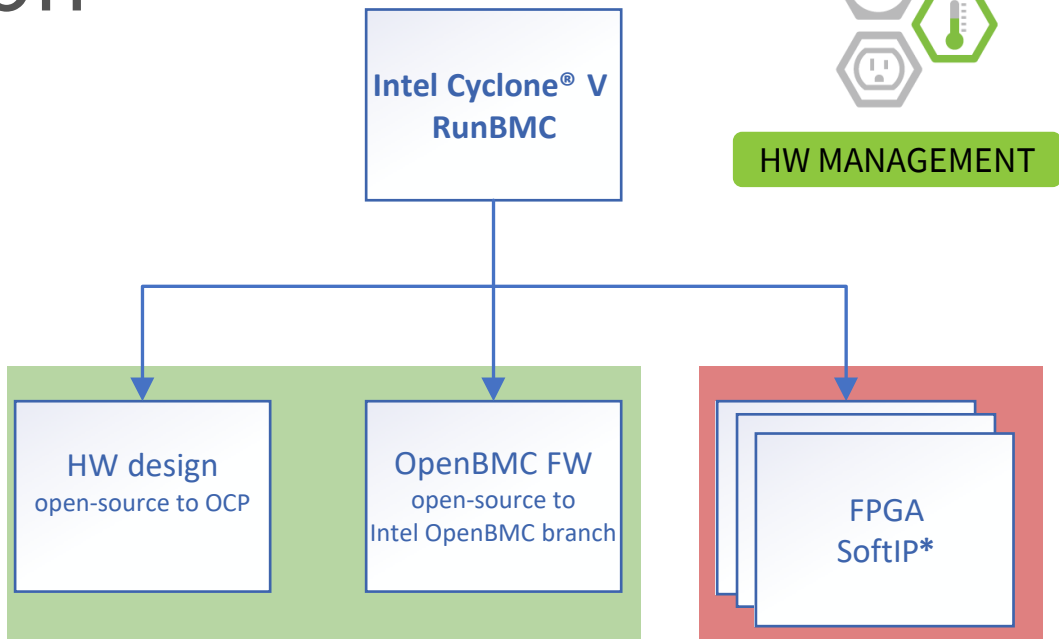
Intel RunBMC Design Contribution:

HW Module Design

- Module schematics
- Module PCB Design

OpenBMC Enabling for Cyclone® V:

- Kernel and uBoot support
- Sensors, FRU, Fan support
- FPGA enabling and project setup guideline



*Not part of the contribution

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Call to Action

- Join us in Experience Area to see the Live Demo
- Expect Intel RunBMC Design Contribution available shortly.

Project Wiki with latest specification :

https://www.opencompute.org/wiki/Hardware_Management/Hardware_Management_Module

Mailing list: OCP-HWMgt-Module@OCP-All.groups.io

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Open Discussion



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