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Hardware Management Project Update



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SUMMIT

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Hardware Management Project Update

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HW MANAGEMENT



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Agenda

- OCP Hardware Management Goals
- Project Overview
- Sub-Projects
- Call to Action



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OCP Hardware Management Goals



HW MANAGEMENT

- Cover hardware management of OCP platforms
- Enable interoperable manageability for OCP platforms
- Provide a common foundation for manageability for OCP projects

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Project Scope

- Standard manageability interfaces
- Baseboard management controller (BMC) requirements
- Interoperability and conformance to manageability specifications
- Provide guidance and feedback to other Open Compute projects
- Oversee the OCP's OCP-Profiles repository
- Rack Management Controller (RMC)
- Hardware fault management
- Hardware Management Module
- Device Manager



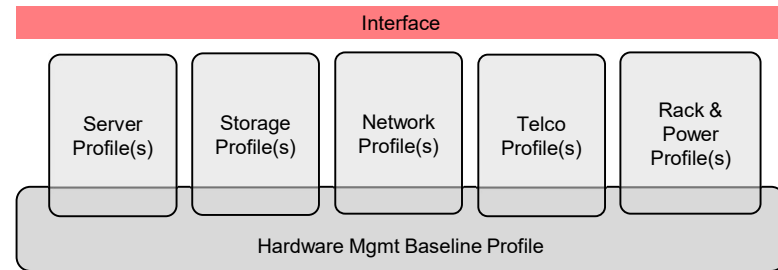
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Platform Manageability - Redfish based OCP Profiles

- The HW Management Project created a baseline hardware management profile
- Baseline profile includes a set of manageability common across OCP platforms
- Other OCP projects may extend and create platform specific profiles



Baseline Profile: <http://files.opencompute.org/oc/public.php?service=files&t=1c8c2ee9d04ef0eed7a683291c9e3506>

Server Profile: <http://files.opencompute.org/oc/public.php?service=files&t=77f9924b9573113bf6274fa4d7e72787>

Conformance Test Suite: <https://drive.google.com/file/d/1R05H0LaqG9DmTDJdMGhKkLckpwIfeONT/view?usp=sharing>

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Project Specifications Published

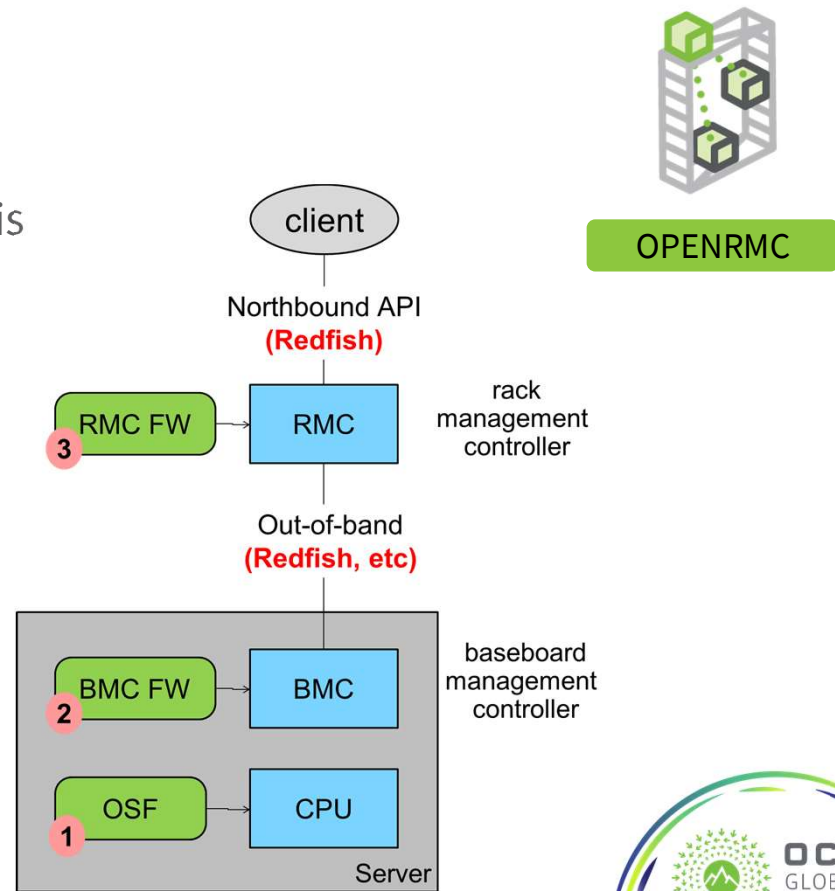
- OCP Redfish Profile: baseline and server
- OpenRMC Northbound API Specification
- OpenRMC Northbound API Profile
- OpenRMC Design Requirements Specification
- RunBMC Specification

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OpenRMC

- Open-source firmware on the platform is enabled by the Open System Firmware project and the platform profiles
- OCP wants a path for open-source firmware for the rack management controller
- The OpenRMC subproject is specifying the northbound interface and profile



OPENRMC

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Hardware Fault Management

- Sub-project in incubation
- Focuses on standardizing system behavior under hardware failures
- Defines key baseline requirements of managing HW errors
- Provides reference/guidance on system HW failure management



HW FAULT
MGMT

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Hardware Management Module

- Sub-project in incubation
- Covers RunBMC (server mgmt.) and DC-SCM (data center) specs
- RunBMC standardizes connector definition for server management
 1. Separates management controller module from the common platform management hardware
 2. The module is specified by its connector pin-out
 3. The module covers one or more form-factors
- Datacenter Secure Control Module (DC-SCM) specification provides a standard secure control interface for data center management

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Device Manager

- Sub-project in incubation
- Provides a unified asset management, monitoring, and control
- Redfish-based device manager architecture

Use Cases

- Asset Management: identify and query devices
- Monitoring: Help with fault Isolation, and take preventive actions
- Manage SW and FW including updates

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MegaRAC OpenEdition Contribution

- Fork from OpenBMC to support BMC functionality on OCP platforms
- Includes platform specific features and out-of-band management
- Source tree based on openbmc-LF
- Source tree maintained by AMI and contributed to OCP

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Call to Action

- Hardware Management Project – Manageability interop focused
- Contribute to OCP hardware management specifications
- Submit proposals for specification considerations
- Submit reference architectures/products compliant to specifications
- Join hardware management project and sub-projects calls
- Attend other hardware management track presentations

OCP Hardware Management Project: <https://www.opencompute.org/projects/hardware-management>

OCP Hardware Management Project wiki: https://www.opencompute.org/wiki/Hardware_Management

OCP Hardware Management Specifications:
https://www.opencompute.org/wiki/Hardware_Management/SpecsAndDesigns

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Thank you!

