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Compute Project



**OCP U.S. SUMMIT 2017**

Santa Clara, CA



# OCP HW management challenges, Nokia experience

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OCP engineering workshop 9.3.2017

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# OCP HW management challenges

## TOPICS:

- Background & target
- Solution alternatives
- Managing HW components
- Improvement needed
- Summary

# OCP HW management

## Background & target

All OCP HW types and other variants in portfolio

- Servers, switches, storages, power supply etc.

High level requirements:

- Best feature set for most computing needs
- Openness
- Cost efficient solution for our customers
  - CAPEX
  - OPEX
- Ease of operations & management
- Automation of operations



# OCP HW management

## Solution alternatives

HW management from HW component supplier

- several products & mixed user experience

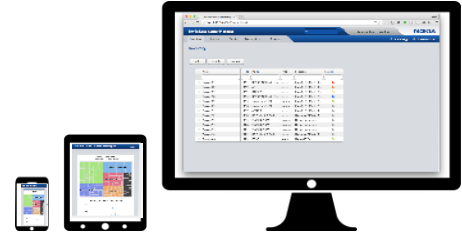
Partner with HW management SW suppliers

- none available for our needs

Use open source solutions for HW management

- many tools & options available
- many HW management domains covered by open source projects, e.g.
  - Monitoring
  - Inventories
- none with complete feature coverage

-> need to develop own solution



# OCP HW management

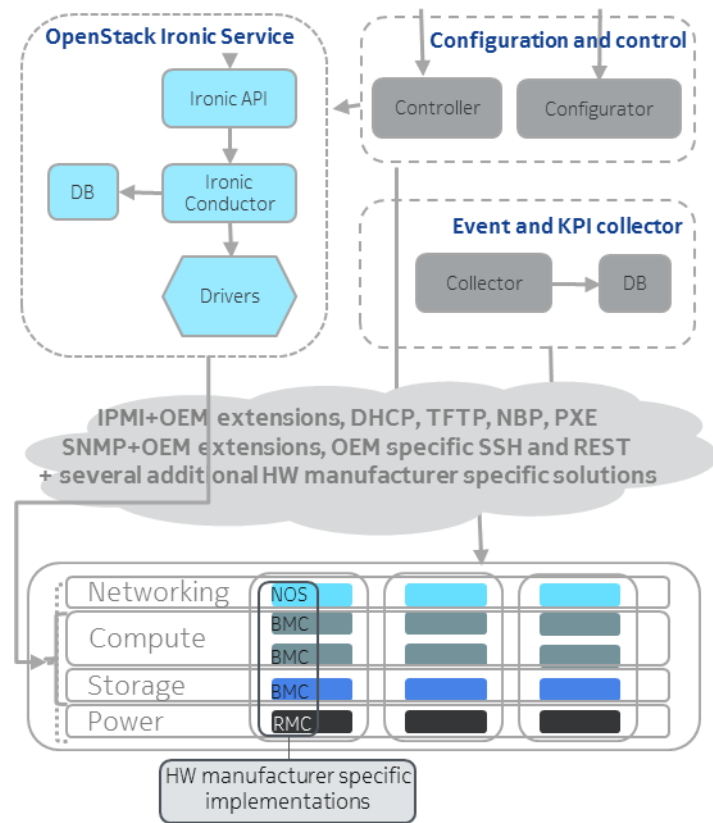
## Managing HW components

One critical part is interfacing with HW  
Selected to use IroniC for key element  
in interfacing with HW

- HW agnostic design
- Large community support

But it's not enough...

- HW interfaces have vendor specific attributes
- Well known shortcomings of IPMI
- Other interface alternatives available & emerging, such as Redfish or Open BMC API



# OCP HW management

## Improvement needed for HW interfacing

Aim to common OCP HW management interface

Existing activities have not gone into deep enough details, more effort needed

Define concrete common interpretation on how to use HW management interfaces

Redfish usage needs to be defined in more detailed level, OCP reference for Redfish

Enable HW suppliers to support common Redfish for OCP

Ensure Open BMC can support the same common approach





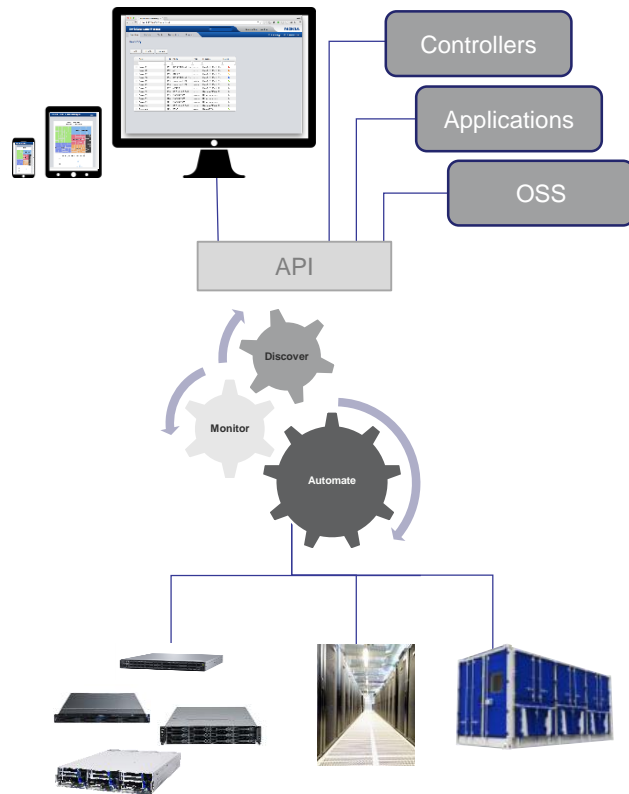
# Summary

Vendor specific HW management interfaces prohibit generic solutions

Existing activities in right direction, but not detailed enough

Define concrete common interpretation on how to use latest HW management interfaces

Enable HW suppliers to support common interface for OCP



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