

OCP Profiles for Hardware Management

Progress Report

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OCP Incubation Committee Rep to Hardware Management Project

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Conformance to OCP Profile(s) are supplier requirements

- Profile conformance requirements for Accepted and Inspired are the same

For OCP Accepted™		All Products	Notes					
Supplier Details		X						
Hardware Management		See table below						
		Server Sleds & OpenEdge Sleds	Storage Enclosures & systems	Networking Equip. and Switchgear	Rack Frame	Power Systems	Monolithic Servers	Enclosures that support mgmt
Baseline Profile		required	required	required	N/A	required	required	required
Product-specific Profile		required	desired	desired	desired	desired	required	desired

For OCP Inspired™		All Products	Action					
Supplier Details		X						
Hardware Management		see table below						
		Server Sleds & OpenEdge Sleds	Storage Enclosures & systems	Networking Equip. and Switchgear	Rack Frame	Power Systems	Monolithic Servers	Enclosures that support mgmt
Baseline Profile		required	required	required	n/a	required	required	required
Product-specific Profile		required	desired	desired	desired	desired	required	desired

A Test Suite for checking conformance



Test	Description	Upon Passing
Redfish Interop Validator	Validates that the implementation conforms to Profile	Upload test report
Redfish Service Validator	Checks the conformance to the Redfish schema	Upload test report
Redfish Protocol Validator	Tests the HTTP protocol behavior of the implementation conforms to the Redfish specification	Upload test report
Redfish Use-case Checker	Exercise and validate common use cases: <ul style="list-style-type: none">• One Time Boot, Power/Thermal Info, Power Control, Account Management, Query Parameter, Manager Ethernet Interface	Upload test report

All tests are open-source - <https://github.com/dmtf>

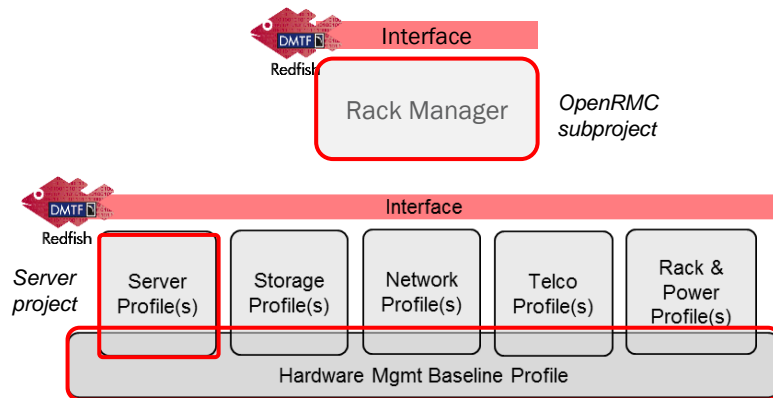
"Conformance to OCP Hardware Management Profiles" presented at OCP Global Summit 2021

Status of OCP Profiles

- Baseline, server & rack manager profiles and usage guide have been approved by the IC¹
 - The Usage Guide shows how management use cases are accomplished²
 - The open-source OpenBMC repository uses the server profile
 - Platform expertise needed to extend baseline
- Plans for storage and cooling environment profiles
 - Discussed in other Tech Talks

¹<https://github.com/opencomputeproject/HWMgmt-OCP-Profiles>

²<https://www.opencompute.org/contributions?query=usage>



5. Use Cases

5.1 Get status of chassis

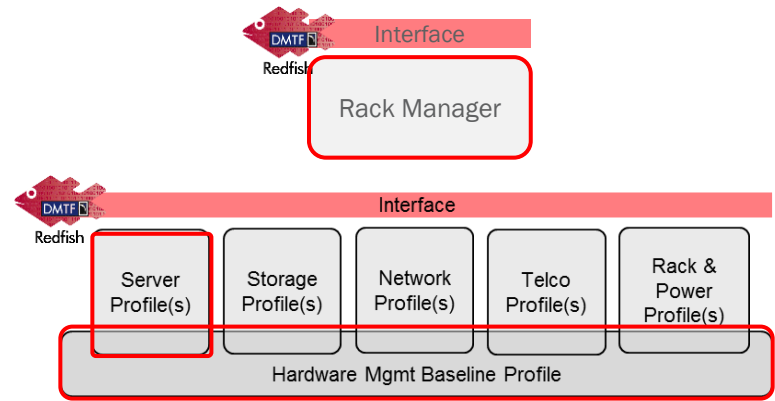
```
GET /redfish/v1/Chassis/Ch1
```

The response includes the following fragment.

```
{  
  "Status": {  
    "State": "Enabled",  
    "Health": "OK"  
  }  
}
```

Proposed changes to Profiles¹

- Rack manager
 - Add firmware update
 - Add group operations
 - Add authentication mechanism between manager and nodes
- Server profile
 - Add local disks and storage
- Baseline
 - Add firmware update



¹<https://github.com/opencomputeproject/HWMgmt-OCP-Profiles>
./RackManager, ./Server, ./HWMgmt

OCP Profiles



Hardware Management Baseline Profile

Use Case	Manageable Capabilities
Redfish Interface	<ul style="list-style-type: none"> Get Redfish version & Unique identifier
Account Mgmt	<ul style="list-style-type: none"> Get accounts
Session Mgmt	<ul style="list-style-type: none"> Get sessions
Chassis inventory	<ul style="list-style-type: none"> Get the FRU information Get and Set the Asset Tag
Chassis location	<ul style="list-style-type: none"> Get and Set of location LED
Status	<ul style="list-style-type: none"> Get status of chassis
Power	<ul style="list-style-type: none"> Get power state, power usage and power limit Get version of PSU firmware
Temperature	<ul style="list-style-type: none"> Get the temperature Get temperature thresholds
Cooling	<ul style="list-style-type: none"> Get fan speeds Get fan redundancies
Log	<ul style="list-style-type: none"> Get log entry Clear the log
Management Controller	<ul style="list-style-type: none"> Get version of firmware for MC Get status of MC Get network information for MC Reset the MC
Update	<ul style="list-style-type: none"> Firmware update

Server Profile

Use Case	Manageable Capabilities (in addition to baseline)
Systems	<ul style="list-style-type: none"> Get list of systems Get information on a system
System inventory	<ul style="list-style-type: none"> Get the inventory data Get and Set the Asset Tag
System location	<ul style="list-style-type: none"> Get and Set the location LED
System	<ul style="list-style-type: none"> Get the type of system Get the power state of the system Get status of computer system Reset the system
System firmware	<ul style="list-style-type: none"> Get version of system firmware
Processor	<ul style="list-style-type: none"> Get summary of processor information
Memory	<ul style="list-style-type: none"> Get summary of memory information
Ethernet	<ul style="list-style-type: none"> Get list of Ethernet interfaces Get an Ethernet interface Get status of Ethernet interface Get and set the IPv4 address
Boot Information	<ul style="list-style-type: none"> Get boot information Set boot device
System Log	<ul style="list-style-type: none"> Get system log Get list of system log entries Get a system log entry Clear the log
Disk	<ul style="list-style-type: none"> Enumerate disks Get disk information

Call to Action

- Within your OCP Platform project communities, determine whether baseline manageability is sufficient
 - If not, develop a platform specific profile - The Hardware Mgmt Project can assist
- Become familiar with executing and reviewing the test results of the conformance tests



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Questions?

Thank you!