OCP Global Summit
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Cloud Service Model (CSM)

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Need for at scale remote service model

• Cloud utilizes Open Compute Platforms and other proprietary hardware to deliver services
• Cloud Platform Life Cycle involves firmware updates, peripheral updates, reconfiguration, power & performance management, debug/repair, decommission, etc.
• During the life cycle of the platform, telemetry data are collected and analyzed to make service decisions
• Assistance from hardware, firmware and software vendors would result in better decision making
• Parts of the hardware and firmware management architecture are standardized in OCP, but at scale service operation constructs are not standardized in OCP
Need for at scale remote service model

• Industry needs new framework & standards, for communication of data and procedures between large installation of hosts (servers) and external vendor of support

• Scale beyond single entity, include hyperscalers and vendors of different size
CSM WG Overview

**CSM WG Purpose**
- Define comprehensive at scale remote service model (inclusive of different sizes)
- Standardize interfaces for at scale remote service model & enable added services
- Deliver services across the boundaries of ownership
- Ability to integrate vendor tools using common framework

**Major Challenges**
- Requirement spans across many areas of Life-cycle management
- Influence spans across multiple OCP disciplines
- Build a complementary toolset to existing solutions, rather than replacing them
- To service different size of customers
Cloud Service Model

Cloud Services utilizes OCP HW and FW services

DC Stack: Datacenter-ready Secure Control Interface
DC-SCM: Datacenter Secure Control Module

Cloud Service Manager

Life-cycle management
- Telemetry, Diagnostics
- Firmware updates
- Power, performance
- Security, attestation
- Debug
- Compliance
- Maintenance, repair
- Decommission

Decommission

DC-SCI Specification

DC-SCM

Modular Hardware
- DC-Stack
  - Data center-ready Integrated stack
  - Modular Software:
    - Machine mgmt. security
    - Test & validation benchmarks

Datacenter-ready Secure Control Module (DC-SCM)

Integrated stack

Cloud Service Model (CSM)

- Life-cycle management
- Telemetry, Diagnostics
- Firmware updates
- Power, performance
- Security, attestation
- Debug
- Compliance
- Maintenance, repair
- Decommission
Cloud Service Model Roadmap

**17 Feb’21**
- Team formation, Goal alignment
- Define soft roadmap for 2021
- Identify top Industry Use Cases
- Develop details for top 3 Use Cases

**Nov’21**
- OCP’21 FT Symposium
  - 3 topic presentation in CSM breakout session
  - 1 panel discussion

**Mar’22**
- CSM FTI Team
  - Finalize at scale service model for top 3 cloud use cases
  - Define CSM 0.5 specification

**Nov’22**
- OCP’22 FT Symposium
  - Work with other OCP projects and industry standard bodies to include top 3 use cases
  - Explore next top 3 use cloud use models and research areas
  - Define CSM 0.7 Specification
# Cloud Service Model – Breakout Sessions

<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>Cloud Service Model Overview</td>
<td>2:30 – 2:35pm</td>
<td>Sammy Nachimuthu, Intel Corporation</td>
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<tr>
<td>Telemetry/Diagnostics Remote Service Model</td>
<td>2:35 – 2:55pm</td>
<td>Panos Christeas, Leandro Silva, Facebook</td>
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<td>Inband Management Agent (IMA)</td>
<td>2:55 - 3:15pm</td>
<td>George Kola, Google</td>
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<td>Device Management Control (DMC)</td>
<td>3:15 – 3:35pm</td>
<td>Bumjun (Bjay) Kim, Changho Choi, Samsung</td>
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<td>Route to Open Infrastructure Management</td>
<td>3:35 – 4:00pm</td>
<td>Facebook, Google, Microsoft, Intel, Samsung</td>
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