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Cold Plate Project Overview



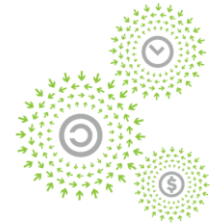
OCP
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NOVEMBER 9-10, 2021

CE (Cooling
Environments)

Cold Plate Project Overview

Sean Sivapalan, Cold Plate Work Stream Lead
Intel Corporation



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Cold Plate Sub-Project Overview



RACK & POWER

Approved Contributions

- 2021: Leak Detection and Intervention White Paper
- 2021: An Advanced Liquid Cooling Rack Design for Data Center White Paper
- 2021: Integration and Logistics White Paper
- 2021: Methodology: Development & Testing of Blind-Mate Universal Quick Disconnect White Paper

Contributions Under Consideration

- 2021: Universal Quick Disconnect Blind-Mate (UQDB) Specification
- 2021: Developing a Mobile Service Cart for Datacenter Fluid Servicing White Paper

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Cold Plate Sub-Project Overview



RACK & POWER

Current Projects

- Orv3 Blind Mate Liquid Cooling Interfaces Group

Project contact Glenn Charest, Facebook GPCharest@fb.com

- Fluid Serviceability and Maintenance

Project contact Sean Sivapalan, Intel Corporation sean.t.sivapalan@intel.com

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Future Activities

- Alignment of ACS Cold Plate contributions with Advanced Cooling Facilities (ACF) and Data Center Facilities (DCF) specifications
- Design guidelines for implementing a liquid cooling loop in a data center environment.
- Methodology for testing and verification of secondary loops components (CDU, quick connectors)
- Wetted materials, fluid maintenance and serviceability

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Agenda – Cold Plate



RACK & POWER

- Developing a Mobile Fluid Cart to Service Liquid Cooled Racks
Jordan Johnson (Intel) and Saurabh Kulkarni (Facebook)
- Universal Quick Disconnect Blind Mate Fluid Connector Development
Mark Sprenger (Intel) and Jordan Johnson (Intel)
- Liquid Cooling Integration & Logistics
Nigel Gore (Vertiv) and Cam Turner (CoolIT)
- Risk and Reward: How to Mitigate Liquid Cooling Concerns in Advanced Computing Centers
Cam Turner (CoolIT) and Fred Rebarber (Vertiv)

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Call to Action

- Get involved in the ACS Cold Plate Sub-Project group
 - Monthly meetings 11-12 AM ET
 - <https://www.opencompute.org/projects/acs-cold-plate>
- ACS Cold Plate White Paper contributions
 - <https://www.opencompute.org/contributions>
 - Select “Rack & Power > ACS Cold Plate” under Project in search window
- ACS Cold Plate Sub-Project Wiki:
 - [https://www.opencompute.org/wiki/Rack %26 Power/Advanced Cooling Solutions Cold Plate](https://www.opencompute.org/wiki/Rack_%26_Power/Advanced_Cooling_Solutions_Cold_Plate)

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Thank you!



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