

Advanced Cooling Solutions Sub Project

The Open Compute Project leadership is responding to an industry need to collaborate on liquid cooling and other advanced cooling approaches. OCP has formed the ADVANCED COOLING SOLUTIONS sub-project to 1) harmonize the supply chain thus enabling deliver of building blocks for wider, quicker, and easier adoption of liquid cooled servers, storage, and networking gear and 2) to create a community of collaborators for future advanced cooling solutions. This new sub-project will be part of the existing Rack and Power Project.

High performance computing has used liquid cooling for many years. These solutions have proven to be cost effective and efficient at heat extraction. With the growth of 5G, IoT, VR, CDN, and latent sensitive applications, data centers are being constructed closer to their customers and often in regions of the globe where traditional air and mechanical (e.g. chillers) cooling becomes quite expensive. Increased power density also introduces cooling challenges. In these cases liquid cooling, and specifically warm water cooling, becomes an effective alternative for heat extraction. Some of these same challenges of efficient power delivery, cooling, and density have already been addressed with the OCP OpenRack architecture and Olympus design (EIA-310 compatible). Harmonization of liquid cooling is a logical step for the OCP community as it will benefit OpenRack and Olympus-based products as well as Project Scorpio in China.

The new sub-project will focus on standardization and definition of critical interfaces, operational parameters, and environmental conditions that enables a non-proprietary, multi-vendor supply chain for 'warm water' cooling. OCP envisions a supply chain offering a variety of IT devices (servers, storage, networking etc.) that can work with a variety of liquid-enabled racks from many solutions providers. Direct contact, immersion, and other advanced cooling options are within the scope of this project.

Upcoming Collaboration Opportunities:

There are two upcoming events where this workgroup will meet:

- OCP Rack & Power Workshop - hosted by Delta in Fremont, California on July 24. [Click here](#) for details on this free workshop.
- 2018 OCP Regional Summit on October 1-2 in Amsterdam, Netherlands. [Click here](#) for more information.

Mailing List:

To join this group, please subscribe to the following mailing list:

<http://lists.opencompute.org/mailman/listinfo/opencompute-acs>