OCP 101: What is OCP?

How Can Your Organization *Consume, Collaborate, and Contribute*.

Archna Haylock
Community Director
Email: archna@opencompute.org
What is the Open Compute Project (OCP)?

• Industry non-profit focused on establishing an open source HW ecosystem for the Data Center market
• Founded in 2011 by Facebook, Rackspace, Intel - now 195 members and growing
• Current board member companies are Facebook, Rackspace, Intel, Microsoft, Goldman Sachs
• 140+ IP contributions accepted to date from 22 different companies with represents more 170 Products**, includes greenfield and brownfield solutions
• Technology focus driven by board defined scope and community defined technologies – we do not try to be all things to all people

**Includes retired and active product skus
OCP – Yesterday, Today, Tomorrow

Yesterday
• Initial focus leveraged Facebook designs, enabled board member companies such as Goldman Sachs and Rackspace and others to leverage the designs to implement in their existing data centers – giving them access to technologies before they could have without OCP
• Robust community structure developed – currently more than 4000 engineers involved in 9 different projects and Incubation Committee
• Innovation increased and focus shifted to value-added design elements
• Open source HW environment established in industry

Today
• Expanding into markets beyond hyper-scale where IT is core to the business, such as financial, telco, hosting markets – and broadening solutions to address needs of these markets
• Establishing Adoption Ecosystem to enable deployment of innovation into industry

Tomorrow
• Increased emphasis on integration of SW and HW and complete solution ecosystem
• Emphasis on growth in both Innovation AND Adoption
• Continued emphasis on growing and retaining strong community
How it all began
Facebook was growing exponentially, offering new services and giving millions of people a platform to share photos and videos. Looking ahead, the company realized that it had to rethink its infrastructure to accommodate the huge influx of new people and data, and also control costs and energy consumption. That’s when Facebook started a project to design the world’s most energy efficient data center, one that could handle unprecedented scale at the lowest possible cost. A small team of engineers spent the next two years designing and building one from the ground up: software, servers, racks, power supplies, and cooling. The result now stands in Prineville, Oregon. It was 38% more energy efficient to build and 24% less expensive to run than the company’s previous facilities—and has led to even greater innovation.

Facebook shared its designs with the public and—with Intel and Rackspace, Goldman Sachs and Andy Bechtolsheim—launched the Open Compute Project and incorporated the Open Compute Project Foundation. The five members hoped to create a movement in the hardware space that would bring about the same kind of creativity and collaboration we see in open source software.
OCP Organization
OCP Incubation Committee
Co-Chairs:
Aaron Sullivan (Facebook)
Tom Anschutz (AT&T)
* James Jau (QCT)
* Mark Shaw (Microsoft)
* Doug Bone (Hyve Solutions)
* Bob Ogrey (AMD)
* John Leung (Intel)
* Phil Pokorny (Penguin)
* Rob Bunger (Schneider Electric)
* Jeff Caitlin (Edgecore Networks)

OCP Foundation Board
* Chairman/President – Mark Roenigk (Facebook)
* Joshua Matheus, (Goldman Sachs)
* Jason Waxman (Intel)
* Bill Laing (Microsoft)
* Brad Stein (Rackspace)
* Andy Bechtolsheim (Individual)
* Rocky Bullock (non-voting)

OCP Foundation Structure

Rocky Bullock
Chief Executive Officer

Archana Haylock
Community Director

Michael Schill
Membership

Steve Helvie
VP Channel Development

John Laban
EMEA

Bill Carter
Chief Technology Officer

Rajeev Sharma
Director of Software & Technologies

Dirk Van Slyke
Director
Marketing, Communications & Events

Kali Burdette
Meeting & Event Manager

OCP Projects

*IC Chair and Vice Chair are Board appointed - all other seats will be community elected. **While currently staffed by Facebook, all board members companies may give staffing resources to the Foundation.
Membership

A Great Place to Collaborate & Contribute....
How to Join

Consume

• Join the OCP Foundation
• Become a member
• Belong to a Community

Contribute

• Make a Contribution
• Become a Project Lead or IC Member
• Submit a product for OCP’s Product Recognition Program
• Become a Solution Provider

Collaborate

• Adopt an OCP Accepted™ or OCP Inspired™ Product
• Promote the OCP Brand
• Improve/Modify an existing Spec or Design

Consume
5 Easy Steps

Step 1 – Pick a Membership Level
Step 2 – Sign a Membership Agreement & Promote OCP
Step 3 – Join a Project Group
  • Go to the OCP Project Page
  • Select a Project that meets your interests
  • Subscribe to the Mailing List
  • Add the Project Meeting Calendar
  • Join the Conversation!
Step 4 – Make a Contribution
Step 5 – Adopt OCP Ecosystem
# Corporate Membership Tiers

<table>
<thead>
<tr>
<th>Tier</th>
<th>Financial</th>
<th>Contribution</th>
<th>Sponsorship</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| Community  | $2500     | none         | none        | • Eligible for PL Position, pending contribution from company  
|            |           |              |             | • Eligible for Solution Provider Program  
|            |           |              |             | • Product eligible for OCP Accepted™ Product Recognition |
| Silver     | $60,000   | none         | 1 event*    | • Eligible for 1 PL or IC Position. 1 Voting Key  
|            |           |              |             | • 10% Discounts on Summit Sponsorship  
|            |           |              |             | • Eligible for Solution Provider Program  
|            |           |              |             | • Products eligible for OCP Accepted™ or OCP Inspired™ Product Recognition  
|            |           |              |             | • Eligible for 1 Speaking Engagement on behalf of OCP. |

* Events include engineering workshops, plug-fests, seminars, technology days, etc. that OCP conducts independently or in conjunction with a conference or partner. The estimated value of the sponsorship for each event is expected to be $5,000 USD. Sponsorship support could be hosting venue, services or promotional items.
## Corporate Membership Tiers

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| Gold    | $50,000   | 1 Contribution* | 2 Events** | • Eligible for 2 PL or IC Positions. 2 Voting Keys  
• 15% Discounts on Summit Sponsorship  
• Eligible for Solution Provider Program  
• Products eligible for OCP Accepted™ or OCP Inspired™ Product Recognition  
• Eligible for 2 Speaking Engagement on behalf of OCP. |
| Platinum| $40,000   | 2 Contributions* | 3 Events** | • Eligible for 3 PL or IC Positions. 3 Voting Keys  
• 20% Discounts on Summit Sponsorship  
• Eligible for Solution Provider Program  
• Products eligible for OCP Accepted™ or OCP Inspired™ Product Recognition  
• Eligible for 3 Speaking Engagement on behalf of OCP. |

* Contribution Opt-Out Option available  
** Events include engineering workshops, plug-fests, seminars, technology days, etc. that OCP conducts independently or in conjunction with a conference or partner. The estimated value of the sponsorship for each event is expected to be $5,000 USD. Sponsorship support could be hosting venue, services or promotional items.
So many ways to contribute....

Specifications - can be submitted without design files

Products for OCP Product Recognition Program

Tested Configurations of OCP Products (HW/SW)

Design Files*

Reference Architectures* - such as software validations, certifications

*Must be based on a current approved specification

Partial Credit
Promote OCP!

Your Membership Directory

OCP Membership Directory
Projects

Success through Communication and Participation
Communication

In order to make OCP easier to consume we must collaborate and contribute.

Open communication (collaboration) is KEY to driving OCP adoption (consume) and innovation (contribution).

Community empowers people. We want to the OCP Community to be empowered to drive open hardware into various industries such as Telco, Financial, Enterprise and more. However, in order to do so OCP Members have to participate in the projects and be part of the team.
How to Participate

There are many ways to participate in the OCP Community.

Join
- Project Mailing Lists
- Project Calls

Drive
- Project Focus
- Thought Leadership

Run
- Project Leaders
- IC Committee

Contribute
- Specs/Designs
- RAs/Tested Configs/White Papers/etc.

Attend
- OCP Summit
- OCP Meetings
- OCP Panels
- OCP Engineering Workshops
- OCP Days
- OCP Events
The Project Communities

Each of these groups have the following:

- Online Meetings (http://opencompute.org/participate/events/)
- Wiki Pages (http://www.opencompute.org/wiki/Main_Page)
- Mailing list (http://lists.opencompute.org/mailman/listinfo)
- Section on the website (http://opencompute.org/projects/)
The Projects and their Markets

OCP Projects Intersection across Technology Verticals

- Networking
- Server
- Storage
- Rack & Power
- Telco
- Security
- Compliance and Interoperability
- High Performance Computing
- Open System Firmware
- Data Center
- Hardware Management
The IC and the Project Leads are elected positions. Together with the Community Director, they
• review all specifications, designs and products
• help set goals and direction for growing community to drive adoption of OCP Hardware
• encourage open collaboration and contribution
• advise on contribution guidelines, project scope and reach
• Promote adoption and contribution back to OCP

* Appointed Positions by the Board of Directors

IC Co-Chairs*: Aaron Sullivan (Facebook) and Tom Anschutz (AT&T)

IC Representative: Robert Bunger (Schneider-Electric)
Project Co-Leads: Brevan Reyher (Rackspace)

IC Representative: John Leung (Intel)
Project Co-Leads: Hemal Shah (Broadcom) and Norman James (IBM)

IC Representative: Phil Pokorny (Penguin)
Project Lead: Adi Gangidi (Rackspace), Steven Roberts (IBM)

IC Representative: TBD (Incubation)
Project Co-Leads: Gundrala Goud (Microsoft) and Ron Minnich (Google)

IC Representative: Mark Shaw (Microsoft)
Project Co-Leads: Omar Baldonado (Facebook) and Scott Emery (Cumulus)

IC Representative: James Jau (QCT)
Project Co-Leads: Steve Mills (Facebook) and Caleb Lusk (Rittal)

IC Representative: TBD (Incubation)
Project Co-Leads: Nate Klein (Google) and Bryan Kelly (Microsoft)

IC Representative: Bob Ogrey (AMD)
Project Co-Leads: Siamak Tavallaei (Microsoft) and John Stuewe (Dell)

IC Representative: Doug Bone (Hyve)
Project Co-Leads: Jorge Campello (HGST) and Jason Adrian (Microsoft)

IC Representative: Jeff Caitlin (Edgecore)
Project Co-Leads: Craig White (Nokia) and Sumithra Bhojan (AT&T)
Contributions
5 Easy Steps

Step 1 – Sign Contribution License Agreement (OCP or OWF)
Step 2 – Present a Proposal or Idea to the Project Group
Step 3 – Write a spec, submit design files, enroll your product in logo program, perform a case study, write a white paper, reference an architecture, etc.
Step 4 – Get Approval from OCP Incubation Committee
Step 5 – Adopt OCP Recognized Product & use the OCP Marketplace as a channel

The OCP Foundation and OCP Community is with you all the way!
So many ways to contribute...

Specifications - can be submitted without design files

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## 2018 Contribution Credit Structure

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</tr>
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<tbody>
<tr>
<td>Specification or Design Package</td>
<td>1 Specification or 1 Design Package</td>
<td>1 Credit</td>
</tr>
<tr>
<td>OCP Inspired™ Product</td>
<td>5 OCP Inspired™ Product SKUs on the Marketplace. Each SKU must be readily available and must carry the OCP Inspired™ logo.</td>
<td>5 SKUs = 1 Credit</td>
</tr>
<tr>
<td>OCP Accepted™ Product</td>
<td>5 OCP Accepted™ Product SKUs on the Marketplace. Each SKU must be readily available and must carry the OCP Accepted™ logo.</td>
<td>5 SKUs = 1 Credit</td>
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</table>
| Tested Configuration        | A documented and tested configuration using an OCP Inspired™ or OCP Accepted™ Product and configured with additional hardware and operating system software and application software (specific use)  
- Testing plan/results, configuration details must be provided.  
- Contributor warrants tested configuration will work in defined use case and can provide support service  
- Contributor responsible for accuracy of info  
- OCP may promote the contribution of tested configurations via the OCP Marketplace. | 10 tested configurations = 1 Credit |
### 2018 Contribution Credit Structure Cont’d

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| **Reference Architecture**                       | A documented and tested solution comprising:  
\* Two or more unique tested configurations (see above)  
\* Two or more unique OCP Accepted™ Product SKUs.  
\* >50% content use of Orderable SKUs.  
- The contributor must provide product test documentation, certification info, and configuration details about the reference architecture and warrants that the reference architecture works as documented.  
- OCP shall be allowed to promote the contribution of reference architecture via the OCP Marketplace. | Case Dependent (0.5-1 Credit per item) |
| **White Papers & Case Studies**                  | A white paper or case study explaining details of your use of OCP Accepted™ or OCP Inspired™ Products within your infrastructure. The white paper or case study must demonstrate 2 or more OCP tenets and be accepted by the Foundation and IC committee along with the appropriate agreements. OCP shall be allowed to promote this on the OCP website or promotional materials. | Case Dependent (0.25-1 Credit per item) |
| **Educational Videos or Quotable References or OCP-centric Technology Seminars** | For Partial Credit, the Foundation may approve the following items with proper authorization and technical validation. The below items must utilize at least 2 OCP Tenets.  
- Educational Videos for use of OCP Products or Reference Architectures  
- Testimonials and quotable customer references for relevant OCP Products, Test Configurations and Reference Architecture  
- Technology Seminars, when promoting the use of OCP Products, Test Configurations and Reference Architecture  
- OCP shall be allowed to promote this on the OCP website or promotional materials. | Case Dependent (0.5-1 Credit per item) |
| **Organized Plug-fests**                          |                                                                                                                                                                                                            |                             |
| **Engineering Workshops**                        |                                                                                                                                                                                                            |                             |
OCP Product Recognition Program

Products that comply 100% with an existing accepted specification and the design files are open sourced and available.

Products that comply 100% with an existing accepted specification and are available from OCP Silver, Gold or Platinum Member.

Worldwide Delivery, Service, Support Network

OCP-Accepted™ or OCP-Inspired™ Products demonstrate Efficiency, Openness, Impact & Scale
Specs, Design Package, and Products can come from same or different companies.
OCP Marketplace

Welcome to the OCP Marketplace, where you can research products, review specifications and collateral, as well as find out how to purchase OCP products, so you can realize the many benefits of our open community. Use this tool to determine the right mix of OCP technologies to design and purchase a system that meets your specific needs.

Type of search
- Orderable Products
- Specifications & Design
- Collateral

Status
- OCP Accepted (51)
- OCP Inspired (32)

Architecture Category
- Rack & Power (2)
- Network (3)
- Integrated Solution (3)
- Storage (8)
- Server (36)

OCT RackX Leopard Cave (6 SFF)

Model #: RackX Leopard Cave
Part #: 1F0822ZGSFU
Spec#: 00017
Manufacturer : OCT
Tags : N/A
Solution Provider : OCT

Description: Powerful 2U/3N Open Rack v2 Compute Server with 6x SFF (2.5” SSD) drive caddies, a next-generation platform that carries the next generation of powerful dual Intel® Xeon® E-2100 v3, v4 processors with 16 slots of 2400 MHz DDR4 memory for a total capacity of 1024GB to provide impressive high-density computing resources in each node that can handle multiple events concurrently.