



Overview and Getting Started

1. History
2. How OCP is organized
3. The OCP Projects and how you can participate.
4. OCP Regional Expansion
5. How the community is governed.
6. OCP Membership
 - a. How become a Tiered Member
 - b. Benefits of Tiered Membership
 - c. How Time is calculated.
 - d. Supporting Documentation
 - e. Membership Agreement
 - f. Tiered Membership Policy
 - g. Bylaws
 - h. IP Policy
 - i. PR/Media request
7. The specification and design contribution process.
 - a. What is a CLA and why do you need to sign it.
 - i. CLAs
 1. OWF
 2. OCP
 - b. What licenses you can use for your contributions and why it is important.
 - i. Hardware Licenses (OWF, OCPHL-P, OCPHL-R)
8. Contribution Classifications
 - a. What is OCP-Inspired
 - i. Specification and Design
 - ii. Product
 - b. What is OCP-Accepted
 - i. Specification and Design
 - ii. Product
9. OCP Solution Provider Program
 - a. Current SPs
 - b. How to Become an SP
 - c. Benefits of Becoming an SP
 - d. Supporting Documentation
 - i. SP Agreement
10. OCP Component Program
11. Thanks you and Q&A

How it all began

Our History

In 2009, 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.

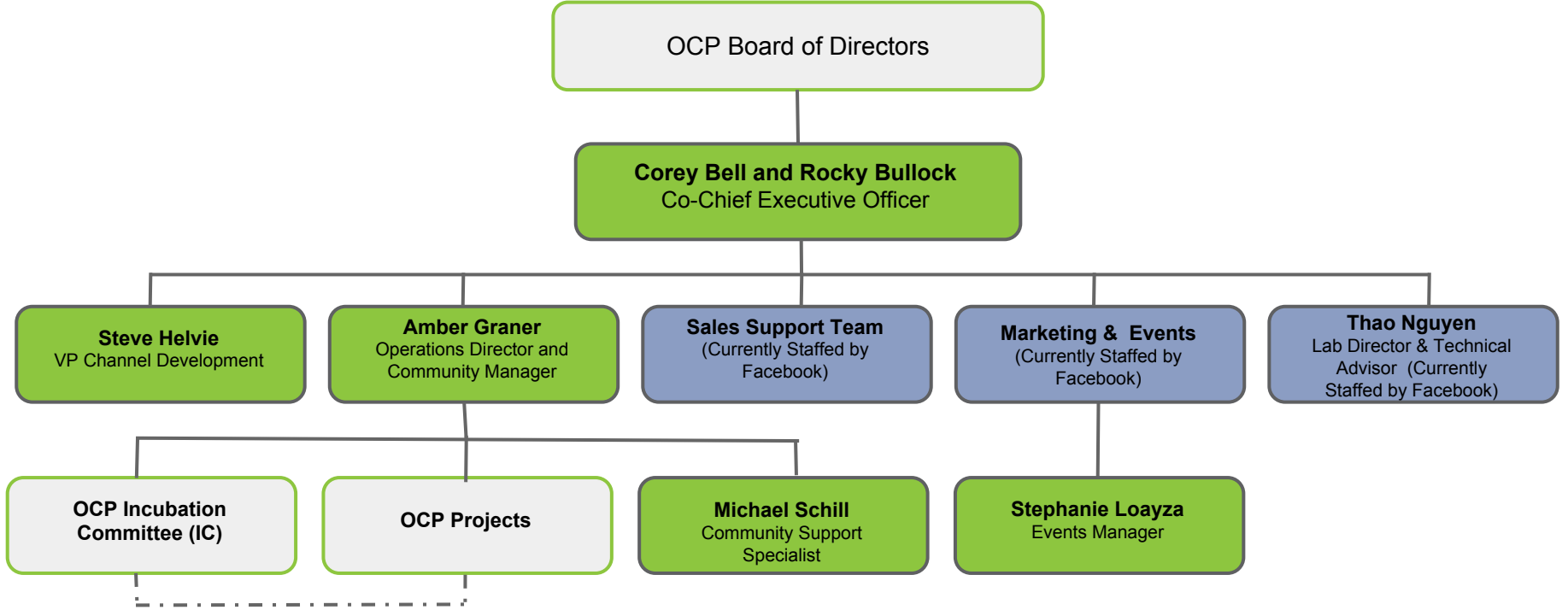
That's when Facebook started a project to design the world's most energy efficient data center, one that could handle unprecedented scale at the lowest possible cost. A small team of engineers spent the next two years designing and building one from the ground up: software, servers, racks, power supplies, 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.

In 2011, Facebook shared its designs with the public and—along 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. And that's exactly what's happening.

OCP Organization

OCP Foundation Structure



LEGEND: Volunteer Leadership (Board Members, IC Members, Project Leads)

OCP Foundation Employees

Staffing Resources given by Facebook. While currently staffed by Facebook, all board members companies may give staffing resources to the Foundaton

OCP Foundation Structure

OCP Incubation Committee

- * **Chair:** Andy Bechtolsheim
- * **Vice Chair** - Amir Michael (OCP Co-founder)
- * Aaron Sullivan (Rackspace)
- * William "Bill" Carter (Intel)
- * Chilung Wang (ITRI)
- * Kushagra Vaid (Microsoft)
- * Eran Tal (Facebook)
- * Conor Malone (Hyve Solutions)
- * Bob Ogrey (AMD)
- * Lakshmi Mandyam (ARM)
- * Open Telco Seat (TBD)

OCP Foundation Board

- * **Chairman/President** - Jason Taylor (Facebook)
- * Don Duet, (Goldman Sachs)
- * Jason Waxman (Intel)
- * Bill Laing (Microsoft)
- * Mark Roenigk (Rackspace)
- * Andy Bechtolsheim (Individual)
- * Frank Frankovsky (Individual)
- * Rocky Bullock (non-voting)

Corey Bell and Rocky Bullock
Co-Chief Executive Officer

Amber Graner
Operations Director and
Community Manager

Steve Helvie
VP Chanel
Development

Sales Support Team**
(Currently Staffed by
Facebook)

Marketing & Events**
(Currently Staffed by
Facebook)

Thao Nguyen**
Lab Director & Technical
Advisor (Currently Staffed by
Facebook)

Michael Schill
Community Support
Specialist

**Stephanie
Loayza**
Events Manager

OCP Projects

Certification & Interoperability

David Woolf (UNH)
Anita Kuo (ITRI)

Project Co-Leads

Data Center

Jason S.
Schafer -

Project Lead

Hardware Management

Rajeev Agrawala
Badridinne Khessib

Project Co-Leads

HPC

Devashish Paul
Thomas Sohmers

Project Co-Leads

Networking

Omar Baldonado
Carlos Cardenas

Project Co-Leads

Open Rack

Steve Mills
Brian Obnesser

Project Co-Leads

Server

Mark Shaw
John Stuewe

Project Co-Leads

Storage

Asghar Riahi

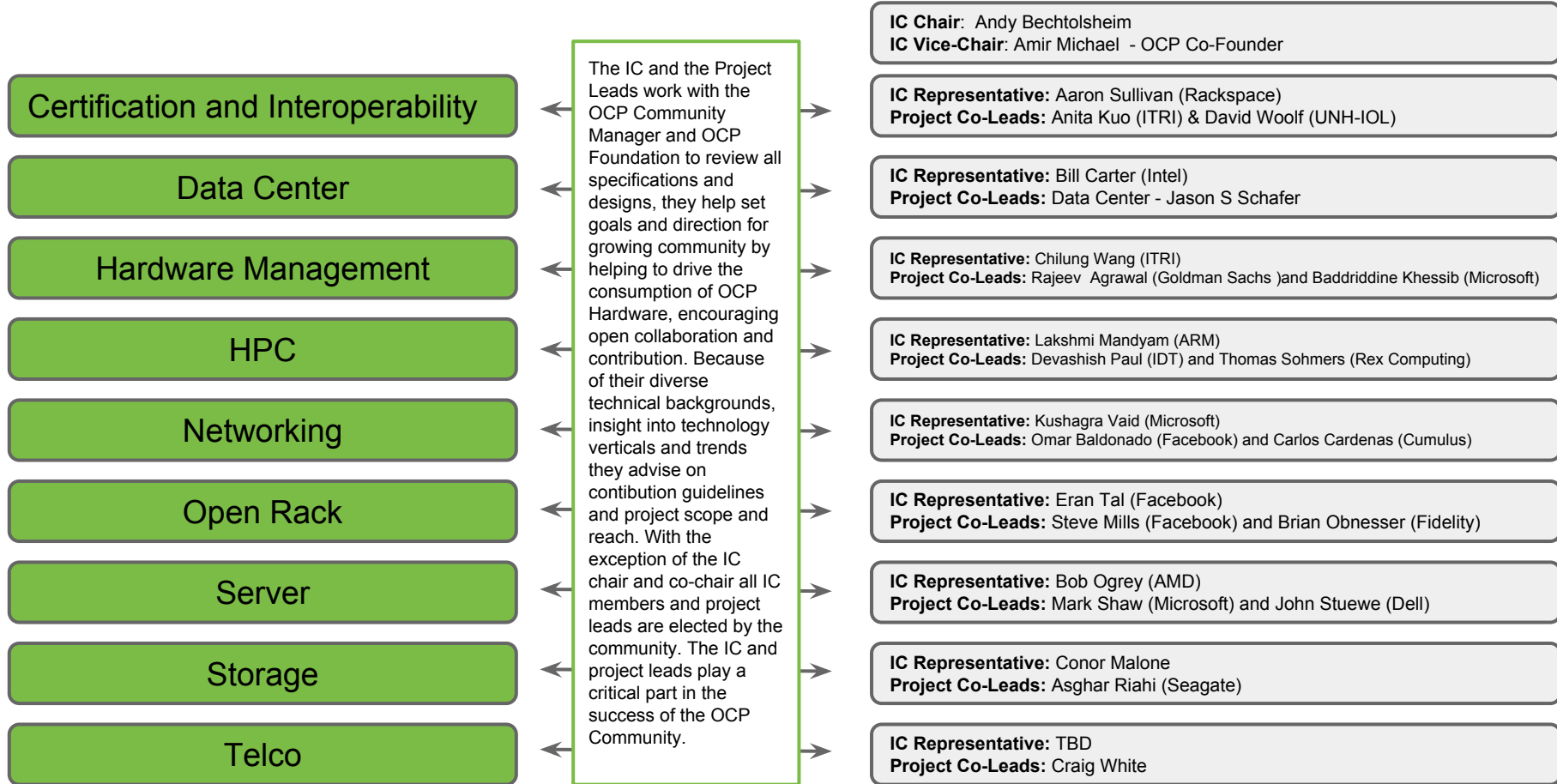
Project Lead

Telco

Craig White

Project Lead

OCP IC Members and Project Leads



OCP Projects

Certification and Interoperability

Data Center

Hardware Management

HPC

Networking

Open Rack

Server

Storage

Telco

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/>)

Each of these groups have a project lead and a representative on the IC.

IC Representative: Aaron Carter (Rackspace)
Project Co-Leads: Anita Kuo (ITRI) & David Woolf (UNH-IOL)

IC Representative: Bill Carter (Intel)
Project Co-Leads: Data Center - Jason S Schafer

IC Representative: Chilung Wang (ITRI)
Project Co-Leads: Rajeev Agrawal (Goldman Sachs) and Baddriddine Khessib (Microsoft)

IC Representative: Lakshmi Mandyam (ARM)
Project Co-Leads: Devashish Paul (IDT) and Thomas Sohmers (Rex Computing)

IC Representative: Kushagra Vaid (Microsoft)
Project Co-Leads: Omar Baldonado (Facebook) and Carlos Cardenas (Cumulus)

IC Representative: Eran Tal (Facebook)
Project Co-Leads: Steve Mills (Facebook) and Brian Obnesner (Fidelity)

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

IC Representative: Conor Malone
Project Co-Leads: Asghar Riahi (Seagate)

IC Representative: TBD
Project Co-Leads: Craig White

How to participate

There are many ways to participate in the OCP Community.

Join the mailing list and add to the conversation and help drive the focus of the projects.

Join the online project meetings and participate in the discussion and provide thought leadership

Participate in-person at the OCP Events - Summit, Engineering Workshops, OCP Days

Participate in Industry events and represent your organizations interest in OCP

Become an OCP Member

Contribute Hardware specifications and designs

Run for an OCP Leadership Position (Project Lead, IC Member, Regional Community Leader)

Regional Expansion

OCP Regional Communities



OCP South Korea



FunFun

Organizer



<i>Companies Involved</i>	<i>Microsoft Korea, Naver.com, Aristanetworks Korea make a promise to support OCP Korea</i>
<i>How often they meet</i>	<i>TBD</i>
<i>How do they communicate</i>	<i>TBD</i>
<i>What is the focus</i>	<i>Cloud based micro services, and IoT</i>
<i>Status of Charter</i>	<i>In progress</i>

OCP Canada



Devashish Paul - IDT

Organizer



<i>Companies Involved</i>	<i>Devashish Paul from IDT, Greg Richards from University of Ottawa</i>
<i>How often they meet</i>	<i>TBD</i>
<i>How do they communicate</i>	<i>TBD</i>
<i>What is the focus</i>	<i>HPC cluster set up, and pulling tech-govt-reseach-university-financial-mining-oil and gas players</i>
<i>Status of Charter</i>	<i>In progress</i>

OCP Europe



**Jean-Marie
Verdun**
Organizer



<i>Companies Involved</i>	<i>Currently Jean-Marie Verdun with the help of Horizon team (SDS), Maxime Terras from Numergy, Thierry Dupeux from WD, Solofo Ramanghali (on his spare time, but HPC engineer at Bull)</i>
<i>How often they meet</i>	<i>Every 2 weeks</i>
<i>How do they communicate</i>	<i>Mail</i>
<i>What is the focus</i>	<i>Outdoor computing, and High performance interconnect Fabric.</i>
<i>Status of Charter</i>	<i>In progress</i>

OCP Australia / New Zealand



Mark Whithouse

Organizer



<i>Companies Involved</i>	<i>@infrx</i>
<i>How often they meet</i>	<i>TBD</i>
<i>How do they communicate</i>	<i>TBD</i>
<i>What is the focus</i>	<i>OCP Solutions</i>
<i>What are the needs</i>	<i>TBD</i>

OCP Taiwan (Approved)



Emily Hong - Wiwynn

Organizer



<i>Companies Involved</i>	<i>non-profit organization initiated by CCAT, ITRI, Wynwin, Inventec, Asus, Delta, Gigabyte, Chung-hwa Telecom, Far Eastern Telecom, Taiwan Mobile</i>
<i>How often they meet</i>	<i>Quarterly</i>
<i>How do they communicate</i>	<i>Email</i>
<i>What is the focus</i>	<i>OCP related technology support</i>
<i>What are the needs</i>	<i>DC know-how & technology updates, OCP certification consulting</i>
<i>Status of Charter</i>	<i>Approved</i>

OCP Japan (Approved)



Kaoru Yamaguchi

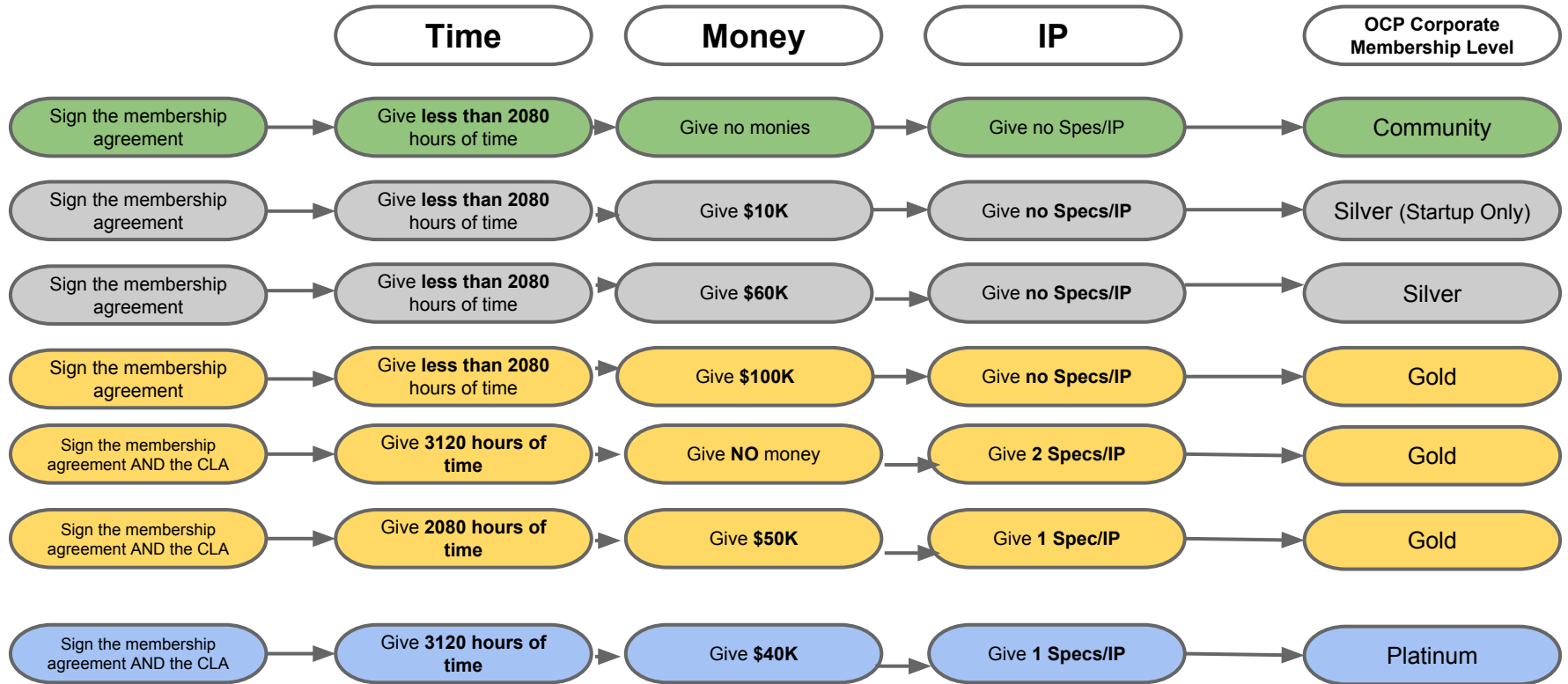
Organizer



<i>Companies Involved</i>	<i>94 companies and 11 individuals, Total 200 participants</i>
<i>How often they meet</i>	<i>2014: May 19: Meet-up, Sept. 18:OCP Eng WS, Sept.19:OCPT and OCPJ Cloud day Tokyo 2015:Jan. 28 :PoC/HVDC WG Engineering WS</i>
<i>How do they communicate</i>	<i>Web site, Members web site, FB page, Meet-up, Working Group activities</i>
<i>What is the focus</i>	<i>PoC Working Group and HVDC WG are active</i>
<i>Status of Charter</i>	<i>Approved</i>

OCP Membership

Ways to reach OCP Tiered Membership



*2080 = 1 full time person per year
 *3210 = 1.5 full time people per year

Startup: Less than 3 years old and less than a million per year in revenue.

Benefits: OCP Tiered Membership Level

	Community	Silver	Gold			Platinum	
Overview of how to reach each level	Intellectual time (project contribution), No financial contribution or IP (Specs/Designs)	Financial Contribution (Only)	Financial Contribution (Only)	Intellectual time (project contribution) and IP (Specs/Designs) (No Financial Contribution)	Financial Contribution and Intellectual time (project contribution) and IP (Specs/Designs)	Financial Contribution and Intellectual time (project contribution) and IP (Specs/Designs)	
	Intellectual time (project contribution) only	\$60K and you get the following	\$10K (startup only) and you get the following	\$100K and you get the following	3120** hours of Intellectual time (project contribution) + 2 IP (Specs/Designs) and No Financial Contribution	\$50K + 2080* hours of Intellectual time + 1 IP Contribution	\$40K + 3120* hours of Intellectual time (project contribution) + 1 IP (Specs/Designs)
Can be nominated for Project Leads/IC Member	Yes/No	Yes/Yes	Yes/Yes			Yes/Yes	
Voting Project Leads/IC Members	Yes/No	Yes/Yes	Yes/Yes			Yes/Yes	
Discount on Summit Sponsorship	No	10% off	15% off			20% off	
Discount on Summit Training	No	10% off	15% off			20% off	
Eligible to Become a Solution Provider	No	No	Yes +additional \$50K			Yes +additional \$30K	
Discounts off Submissions for the OCP Certification Program	No	No	15% off			20% off	

Supporting Documentation

OCP Membership Agreement

OCP Tiered Membership Policy

OCP Bylaws

OCP IP Policy

Certificate of Incorporation

PR/Media Guidelines

If possible please give our PR Team a minimum of 2 weeks lead time for any PR/Media requests.

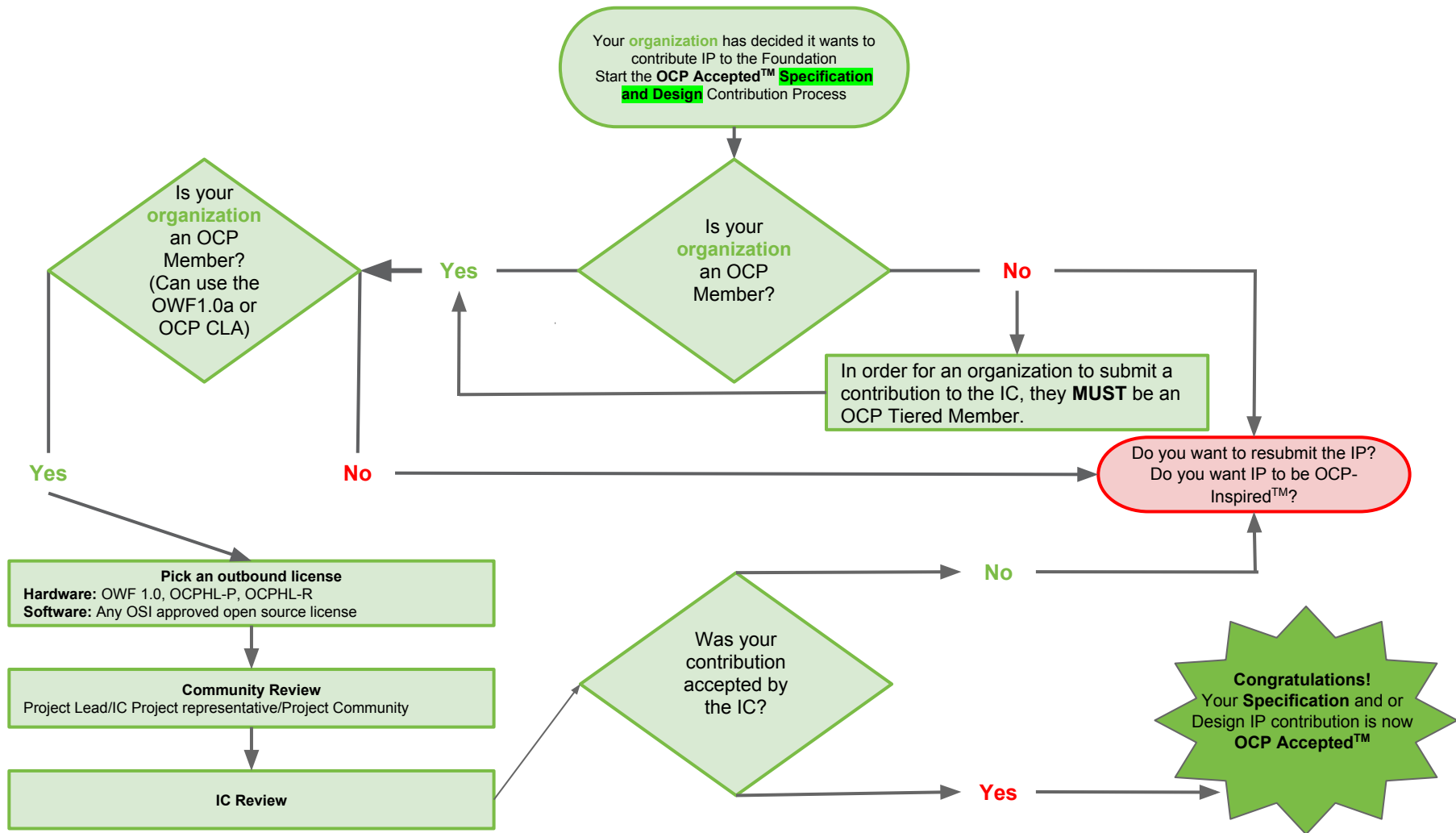
Only Silver, Gold and Platinum Members are eligible for Foundation quotes about membership.

Hardware and software contributors are eligible for Foundation quotes about accepted IP contributions.

Please note: The Foundation does not give quotes about “intended” contributions.
The Foundation does not allow members to use the OCP Logo.
Each Membership tier will be given a logo that corresponds with its membership level.

You can contact our PR Team at press@opencompute.org

Specification, Design and Product Contribution Process



Your **organization** has decided it wants to contribute IP to the Foundation
Start the **OCP Accepted™ Specification and Design** Contribution Process

Is your **organization** an OCP Member?
(Can use the OWF1.0a or OCP CLA)

Is your **organization** an OCP Member?

In order for an organization to submit a contribution to the IC, they **MUST** be an OCP Tiered Member.

Pick an outbound license
Hardware: OWF 1.0, OCPHL-P, OCPHL-R
Software: Any OSI approved open source license

Community Review
Project Lead/IC Project representative/Project Community

IC Review

Do you want to resubmit the IP?
Do you want IP to be OCP-Inspired™?

Was your contribution accepted by the IC?

Congratulations!
Your **Specification** and or Design IP contribution is now **OCP Accepted™**

OCP Membership

Individual

Tiered

Community

Silver

Gold

Platinum

Contributor License Agreement (CLA)

OWF CLA

OCP CLA

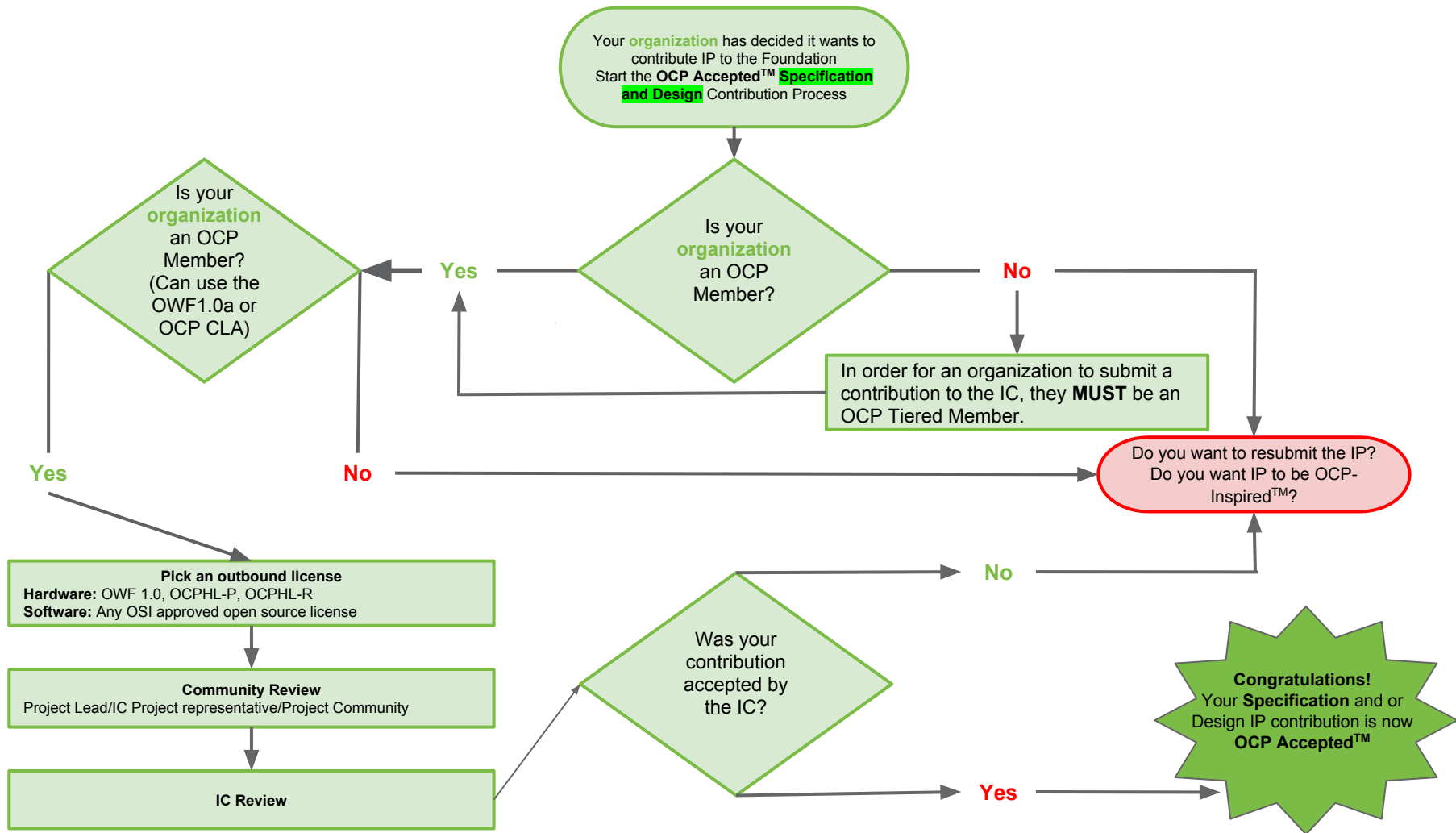
Hardware License

OWFa1.0

OCPHL-R

OCPHL-P

OCP AcceptedTM
and
OCP InspiredTM



OCP Hardware Classifications

Before looking at the criteria for the hardware classifications we need to see what product type of product is it. Below is how we define the following:

Specification(s). Reference and Derivative Implementations

Terminology

- **Specification (aka Spec.)** -- The “on paper” specification. May include a BoM, mechanical files, board files, add on cards, firmware, each of which increase specificity.
- **Reference Implementation** -- A “reference” implementation of the spec. Usually the first to market implementation that was submitted along with the specification.
- **Derivative Implementation** -- Amongst particular implementations, there may still be differences (e.g. different wire runs in the board, different chip placement, etc), even if they follow the general spec. The higher the specificity in the spec (items like board files and BoMs are examples of things that increase specificity), the greater the odds that any given implementation will vary from it.

OCP Accepted™ Specification and/or Design Contribution Process

Step-by-step Guide (with helpful links)

1. Must be an OCP Member. (Either [Individual](#) or Tiered Member) If you are not an OCP Member you may not submit a spec/design contribution.
2. Must sign either the [OCP CLA](#) (Contributor License Agreement) or the [OWF CLA1.0](#) This is the inbound license. Each contribution must have a signed CLA. If you do not sign the one of the two CLA you may not submit a spec/design contribution.
3. Must pick the outbound license. This is what governs how others can use your contribution. If the contribution is a Hardware contribution you must decide between the [OWFa1.0](#), [OCPHL-P](#) or the [OCPHL-R](#) license. If the contribution is a software contribution you must pick and [OSI approved open source software license](#). If you do not pick an outbound license for your contribution, the spec submission process will end.
4. Your contribution must now go the OCP Project Lead and the IC Representative which which governs the OCP vertical that your contribution falls under. This would include: [Data Center](#), [Certification](#), [Hardware Management](#), [HPC](#), [Networking](#), [Open Rack](#), [Server](#), [Storage](#) and [Telco](#). The spec will be reviewed by the Project Lead, IC Representative and the community. Once the Project Lead and IC Representative determine that the contribution is ready to the next step. If you skip this step the IC will send your contribution back to the Project Lead and your submission process will stall.
5. The contribution must go to the Incubation Committee (IC) for review and acceptance decision. [The IC](#) will give the OCP Project Lead and Contributor feedback. Once the Contributor has meet the requirements of the IC the contribution will be accepted and added to the list of OCP accepted specs and promoted as such to the community. If the IP contribution meets the OCP Accepted™ requirements the Foundation will contact the contributor about how to use the OCP Accepted™ trademark. Please note this process just ensures that the specification and or designs meet the OCP Accepted™ requirements. This does not mean that the product can be listed as OCP Inspired™.

OCP Product Classifications

Currently, have two types of classification for hardware: Accepted™ and Inspired™. Below are the criteria for an **OCP Accepted™ Product**

OCP Accepted™ Product Requirements

All OCP Accepted™ **products** must adhere to the following criteria, which are subject to approval from Foundation staff, Incubation Committee leadership, and relevant Project Lead. A **product** may called **OCP Accepted™** when the following criteria are met:

ALL (4) of the following criteria are first met:

1. **MUST** be a product that has been manufactured
2. **MUST** be available for purchase by any member company before publication on the OCP Accepted™ product page. This will be subject to audit, approval, and, if approval is not met, revocation of OCP Accepted™ status, by OCP Foundation Staff.
3. **MUST** meet all criteria in the spec described as “SHALL” or “MUST” or “WILL” or “REQUIRED”. **NO** exceptions are allowed.
4. The submitter **MUST** complete and submit to the Foundation a self-assessment that attests that the product meets the spec criteria.

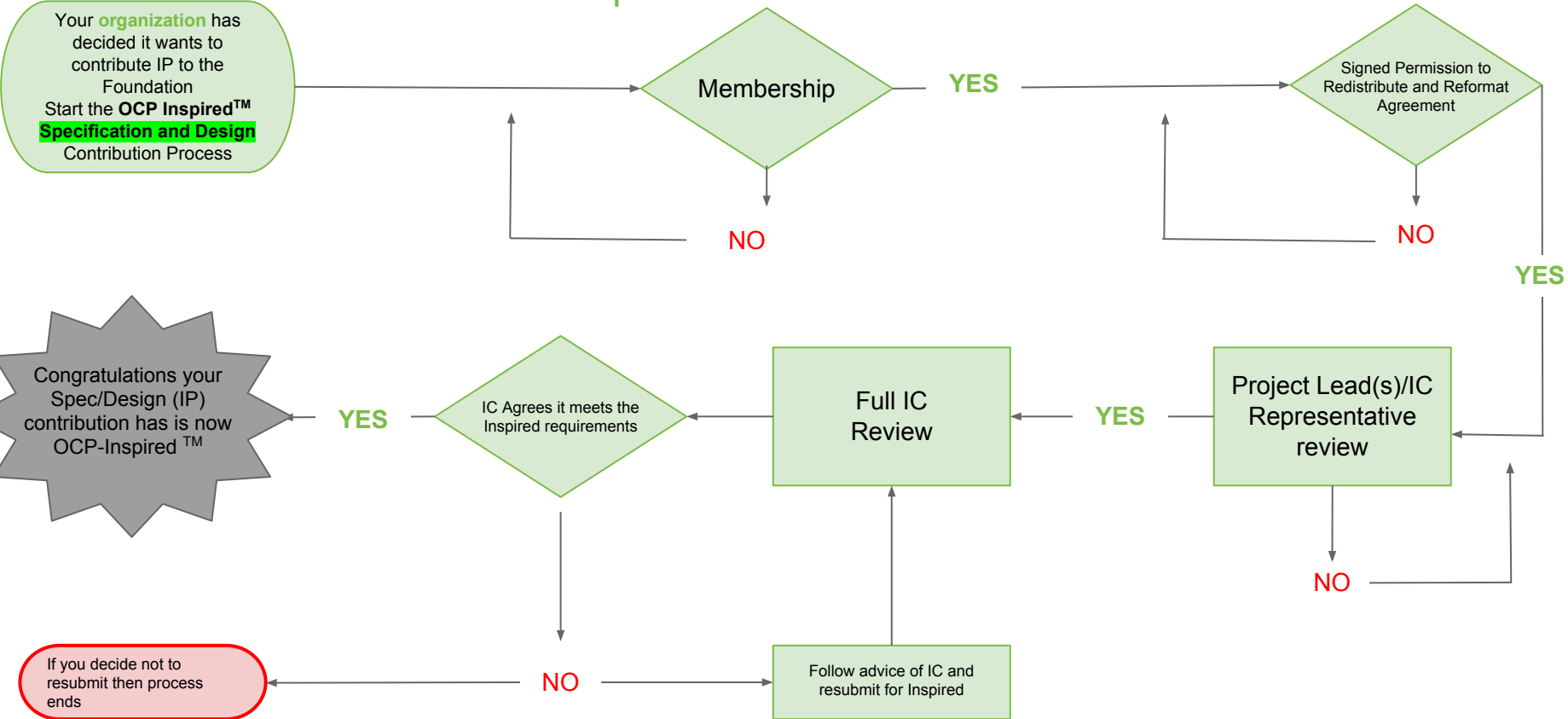
OCP Accepted™ NOTES

If a product does NOT meet the Specification criteria, the submitter is encouraged to either revise or provide an addendum to the original specification. Submitter is encouraged to work with the original author(s).

Once the OCP Accepted™ criteria has been met, the following process is to be followed for publication to the OCP Accepted™ product page and receipt of OCP Accepted™ stickers.

- The submitter **MUST** provide the Foundation with the list of SKUs and orderable part numbers, self-assessment documentation necessary that attests that EACH SKU (orderable part number) meets the specification criteria. Acceptable documentation can be links to public information or documentation sent to the foundation. This will be subject to audit, approval, and, if approval is not met, revocation of OCP Accepted™ status, by OCP Foundation Staff.
- The OCP Foundation will publish the SKUs and orderable part numbers on the OCP Accepted™ product page.
- Upon publication on the OCP Accepted™ product page, the Submitter may use the term “OCP Accepted™” for Product per OCP terms and conditions.

OCP-Inspired™ Submission Process



OCP Inspired™ Specification and/or Design Contribution Process

Step-by-step Guide (with helpful links)

1. Must be an OCP Member. (Either [Individual](#) or Tiered Member) If you are not an OCP Member you may not submit a spec/design contribution.
2. Must sign Permission to Redistribute and Reformat Agreement. If you do not sign this agreement then you may not continue with the OCP Inspired™ submission process.
3. Your contribution must now go the OCP Project Lead and the IC Representative which which governs the OCP vertical that your contribution falls under. This would include: [Data Center](#), [Certification](#), [Hardware Management](#), [HPC](#), [Networking](#), [Open Rack](#), [Server](#), [Storage](#) and [Telco](#). The spec will be reviewed by the Project Lead, IC Representative and the community. Once the Project Lead and IC Representative determine that the contribution is ready to the next step. If you skip this step the IC will send your contribution back to the Project Lead and your submission process will stall.
4. The contribution must go to the Incubation Committee (IC) for review and decision on whether the spec and design contribution meets the OCP Inspired™ requirements. If the IP contribution meets the OCP Inspired™ requirements the Foundation will contact the contributor about how to use the OCP Inspired™ trademark. Please note this process just ensures that the specification and or designs meet the OCP Inspired™ this does not mean that the product can be listed as OCP Inspired™.

OCP Product Classifications

Currently, have two types of classification for hardware:
OCP Inspired™ and OCP Accepted™. Below are the criteria for OCP Inspired™

OCP Inspired™

All OCP Inspired **products** must adhere to the following criteria, which are subject to approval from Foundation staff, Incubation Committee leadership, and relevant Project Lead. A **product** may called **OCP Inspired™** according to the following criteria.

The Product and spec **MUST** go through the normal contribution acceptance requirements for OCP Accepted™. It will be considered for OCP Inspired™ classification If the either

- (1) The up-front intent is to only be OCP Inspired™..
- (2) Product and spec is not accepted.

Items classified as OCP Inspired™ can be go back through the contribution acceptance process to achieve OCP Accepted™ classification after the requirements have been addressed.

Criteria for consideration for OCP Inspired™

- (1) Product **MUST** follow and adhere to at least one tenet of the OCP Principals list.

(2) At a minimum, there **MUST** be a product specification outlining the feature set, base components and enough evidence to convince OCP leadership that the product meets the tenets of OCP Principals.

(3) The Product **MUST** be associated with IT computing, and/or networking, and/or storage. This association is determined at the discretion of an Open Compute Foundation Staff Member or representative.

(4) The Product **MUST** be manufactured (that is, at least one physically available version of it must exist, even if just a prototype or engineering sample) and **MUST** be available for purchase by any member company within 120 days of receiving OCP Inspired™ classification.

OCP Principles

Power efficiency

- Supports High Eff. PS > 92%
- Support High eff VRMs

Thermal efficiency

- Fan / system power ratio <15%

Scale-out / Serviceability

- Tool-less design

Open SW (Management / Tools / FW)

- Support the commands defined in the OCP management spec

Open design and documentation

- User guides
- Specifications

OCP Solution Provider Program

Current OCP Solution Providers



Hyve Solutions

Email: sales@hyvesolutions.com
Phone: (855) 869-6873
Web: hyvesolutions.com



StackVelocity

Email: info@stackvelocity.com
Phone: (408) 643-1570
Web: stackvelocity.com



Quanta Cloud Technology

Email: Sales@quantaqct.com
Phone: (510) 270-6111
Web: QuantaQCT.com



Wiwynn

Email: sales@wiwynn.com
Web: <http://www.wiwynn.com>



Penguin Computing

Email: ocp@penguincomputing.com
Phone: (888) 736-4846
Web: penguincomputing.com



ITOCHU Techno-Solutions Corporation

Email: ctc_ocp@ctc-g.co.jp
Web: <http://www.ctc-g.co.jp/> (Japanese)
Web: <http://www.ctc-g.co.jp/en> (English)



HP

Email: cloudlineocp@hpe.com
Phone: (855) 472-5233
Web: www8.hp.com/us/en/products/servers/scalable-systems/cloudline/

Requirements to become a Solution Provider (SP)?

- The capability to deliver and support integrated rack level solutions
- Be a current [Gold or Platinum Open Compute Project Member](#)
- Sign the [Solution Provider Agreement](#)
- Annual SP program fee
- Local engineering architecture resources for customer engagements
- Establish or maintain relationships with manufacturers of OCP products
- Quarterly business reviews to discuss adoption trends, sales pipeline and marketing efforts
- Actively [participate and contribute](#) to the Open Compute Project

Please contact steve@opencompute.org for more information about the Solution Provider program.

Solution Provider - Benefits

SP's receive **all** the benefits of a Gold or Platinum OCP member plus the additional benefits listed below.

Up to 50% credit toward tiered membership fee for OCP Marketing Events (toward next year's fee)

Up to 50% credit toward the SP fee for accepted white papers, ref architectures & case studies (toward next year's fee)

Access to Facebook data centre tours for qualified prospects*

Business planning, sales training and sales support including potential leads from OCP events

Dedicated page on OCP website including blog postings and PR profiles for SP's

Assistance in writing/editing end user stories to be posted on OCP website

*Prospects must be qualified according to OCP sales methodology and approved by Facebook for DC tours

OCP Component Provider Program

Thank you!

Any Questions?