

Data Center Collaboration and the Open Compute Project

- **Open Source**
- **Data Center Collaborative Projects 2017**
- **Open Compute Project**
 - Impact on IT design
 - Impact on Infrastructure design
 - Adoption

Stop, Collaborate and... Be Open

1911 – Ford enable 2 cycle gasoline engine patent to be made available to the US Automotive Association

1991 – Our best known and the most used Open Source Operating System

2011 - Open Science Project and Open Prosthetic's Project - 3D printing designs made accessible to all

Collaborative Compute Projects

OPEN 19 FOUNDATION

The **Open19** Foundation started as a Concept in 2016 by **LinkedIn, Hewlett Packard Enterprise, and VaporIO** to optimize data center and edge solutions **enabling efficiency and flexibility.**

- An **Open platform that can fit any 19”** rack environment for servers, storage and networking.

CORD

CORD is an open source initiative aimed to **re-architect central offices into datacenters**

- Aims to replace custom hardware with **open source software running on standard servers**
- **“70% of Telco’s plan to deploy CORD in their Central Offices by 2018 or later” - IHS**

Open Compute Project

Founded by Facebook in 2011 with the aim of **challenging conventional design** in order to build one of the **most efficient computing** infrastructures at the **lowest possible cost.**

- 6 years later the project has over **200 members and 2000+ people** actively participating in design projects



Data Centre



Storage



Server



Open Rack



HPC



Networking



Telco



HW Mgmt.



Interoperability

Open Compute Project

The Open Compute Projects mission is to **design, use, and enable** mainstream delivery of **the most efficient designs for scalable computing.**

9 Projects, **200+ Partners** and 2000+ active engineers

IT Hardware offers and the x86 server **market share is changing** in response to this innovation

Find out more @ **Opencompute.org**

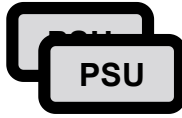
The Open Compute Project

- Impact at the IT Layer – Open Source Hardware

IT: Vanity Free and
Redesigned for purpose



Bezels, Badges and
Ports-3x Server Trays



Power



Fan Cube Law



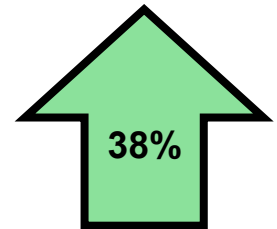
Operation



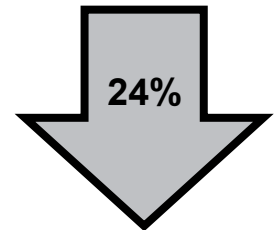
Serviceability



Open



> Energy Efficient



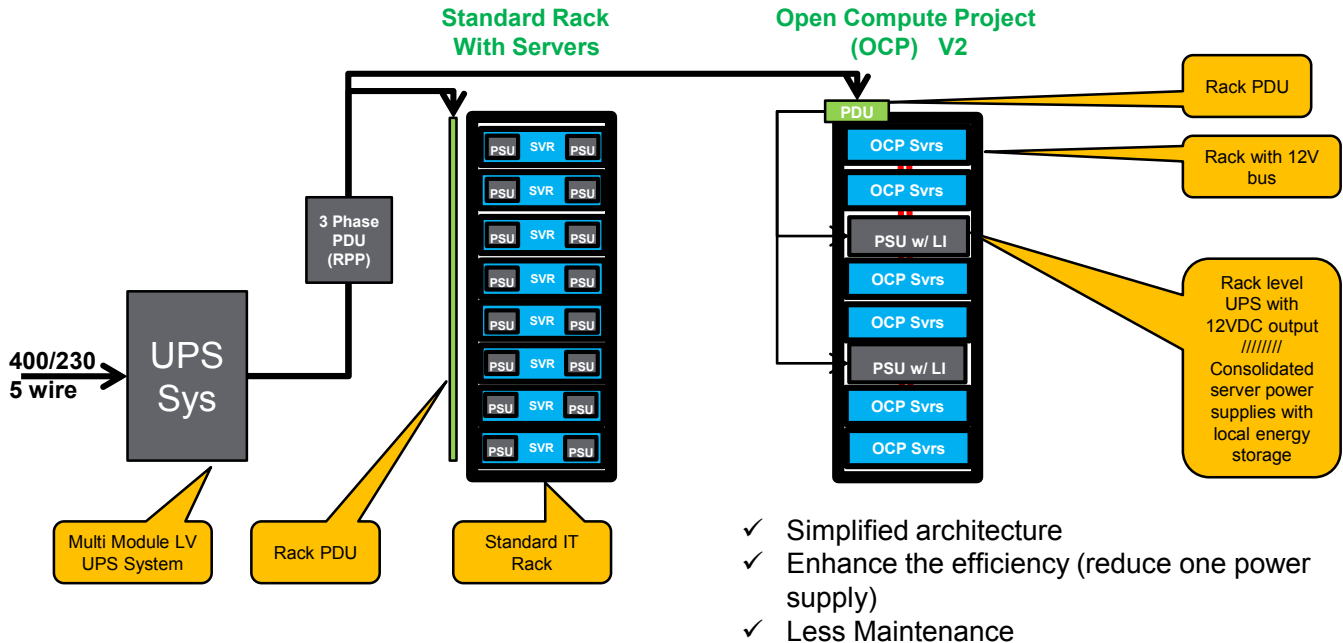
< Cost

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OCP & ODM Leader Europe

The Open Compute Project

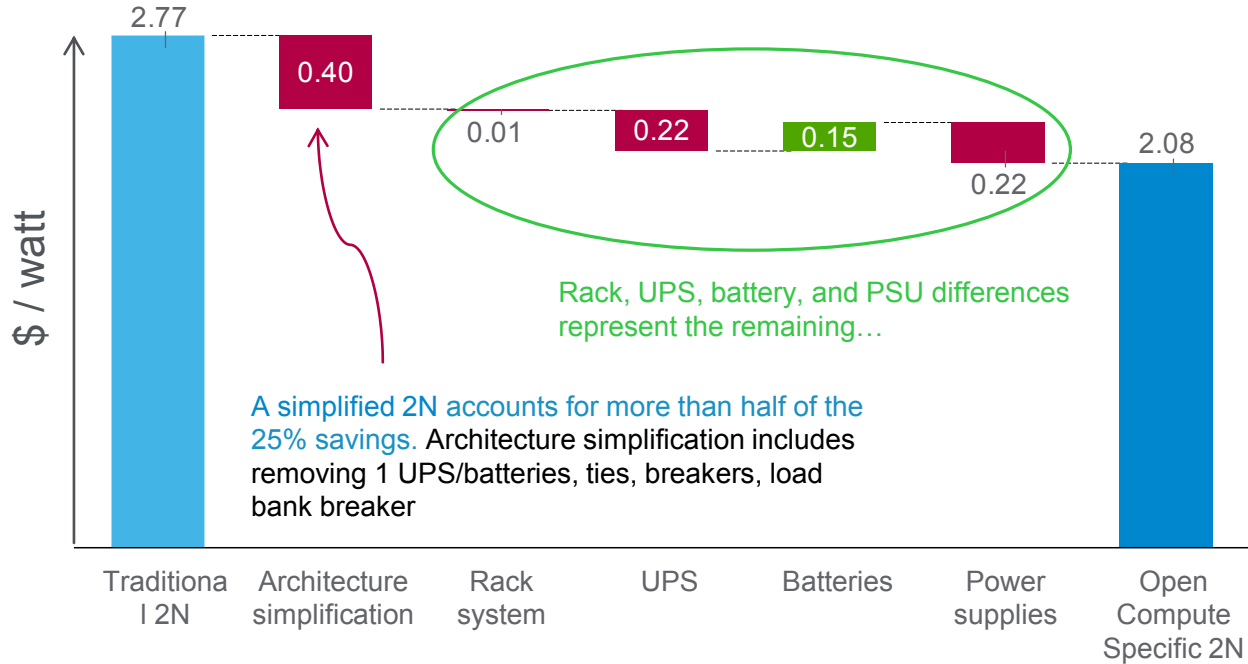
- Impact at the Infrastructure Layer



The Open Compute Project

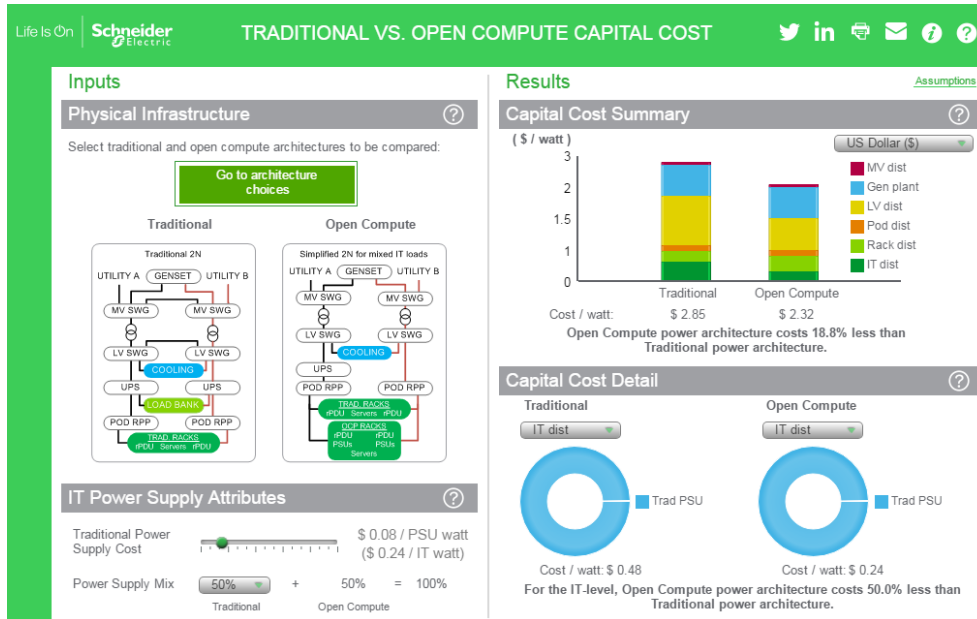
- Impact on infrastructure CAPEX

Cost difference of Traditional 2N vs. Open Compute Specific 2N



The Open Compute Project

- Considerations for CAPEX

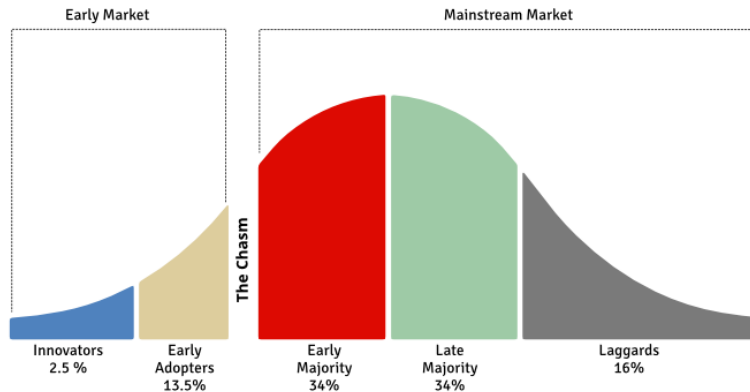


Search: SE Trade-off Tools

The Open Compute Project

- Adoption a question of scale or openness

Hyperscale/ Internet Giants
Telco
Large Enterprise
and beyond



Redesign, Repurpose, Reduce...