#LetsTalkOpenly

A series of 3 webinars determining the opportunity for African businesses around Open Computing

Our speakers

Steve Helvie is currently the VP of Channel for the Open Compute Project (OCP). In this role he helps to educate organisations on the benefits of open hardware designs and the value of "community-driven" engineering for the data centre. He works closely with Solution Providers and Manufacturers to help organisations adopt Open Compute across all regions and segments of the market.

Dr Gilbert Saggia is a seasoned business executive in the East African market, having led several Global Fortune 100 Tech multinationals to significant growth in the region. Dr. Saggia focuses on growing local executive and management talent, top and medium sized enterprises and ensuring overall eco-system growth that interweaves global and local scenes, including working with Government on strategic public assets.

Daniel founded Atlancis with a vision to bridge the technology gap in Africa by combining global expertise with local context. Atlancis believes Technology adoption in Africa can only be driven by Africa. This has entailed developing tech-enabled vertical and horizontal solutions built to world class standards but with an informed understanding of the problems faced by businesses in Africa.

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Agenda

- Impact of OCP on Africa
- Open Source movement in Africa
- Introduction to OCP hardware
  - Servers and storage
  - Networks
  - Optimised Data Centers
- Questions

Impact of OCP in Africa

Dr Gilbert Saggia

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Open Source movement in Africa

Dan Njuguna

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Atlancis' journey

We apply innovation that's been honed in the world's largest data centres to deliver fundamental improvements in performance, administration and efficiency at scale.

It's our belief that a software-centric approach is the future for the data centre. These values run through our corporate ideology determining our alliances and objectives.

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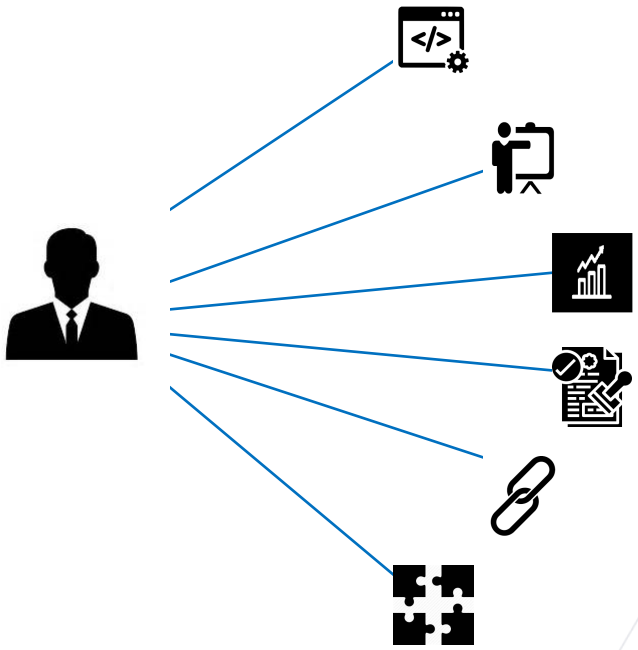
Voice of the customer



Development
- Limited resource pool, high cost
- Low local talent investment

Training
- Expensive and hard to consume
- Vendor lock-in

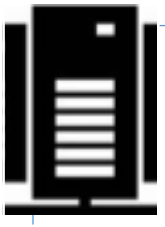
TCO
- High CAPEX and OPEX
- Lack of budgetary control

Licensing
- Bill shock
- Complex models

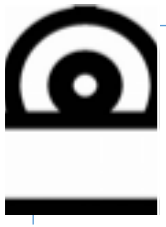
Vendor lock-in
- Over-investing in legacy systems
- Low power of negotiation

Lack of interoperability
- Unable to provide services to the business
- Project failures

Atlancis' OCP decision



- Shorter lead times
- Higher interoperability
- Local design
- Lower failure rates



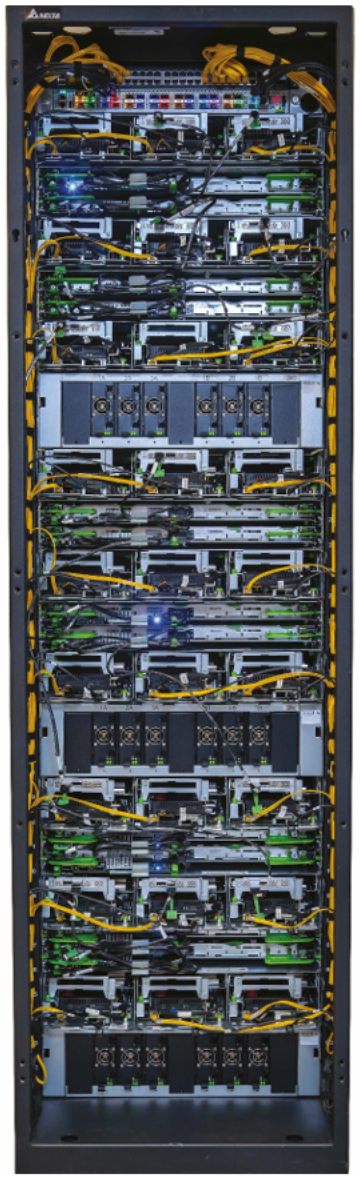
- Little to no licensing fees
- No vendor lock-in
- Increased negotiating power
- Global and local development talent pool

- Bespoke service design
- Lower TCO passed on to customers
- Innovation and operational stability
- Improved, reliability support and resolution times
- Direct and local customer support

- Crowd-sourcing
- Quicker time to market
- Local talent development
- Reduced cost of content production and distribution

Use cases

- 10 projects
- $2m investment
- 50 staff skilled in
  - Open platforms
  - Open architecture
  - Migration from vanity brand to OCP
  - Open standards membership
  - Open source
  - Application development



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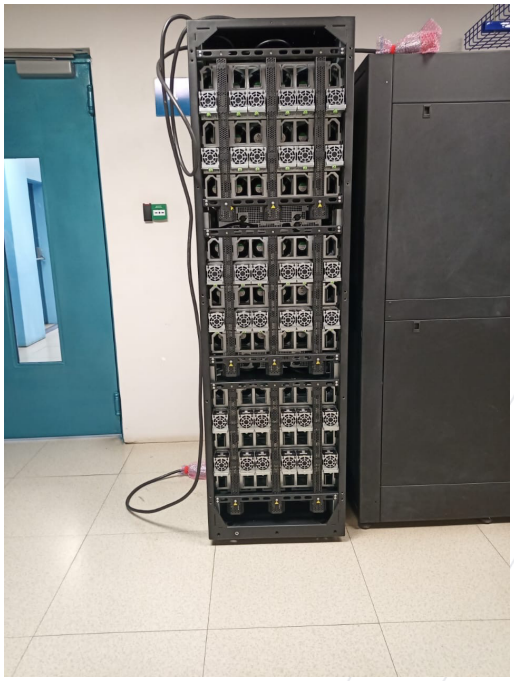
Atlancis OCP tour



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Africa is Open

Atlancis Technologies to use open-source computers to build cloud for Kenyan HR system

Technology

Atlancis Technologies first in Africa t source computers, to build cloud for system

By **News Ghana** - Sep 5, 2019

open source computers

Open Compute Project (OCP) hails Kenyan company as global innovator in developing state-of-the-art cloud infrastructure at

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Kenyan cloud services company, Atlancis Technologies, becomes the first to adopt OCP in Africa

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OCP benefits

50% + CAPEX reduction
Small deployments and scale up
Halved the EADC space
Payback period of 10 months

95% reduction in licensing fees
80% reduction in implementation costs
Reduced timelines to deliver by 75%

Support costs reduced by 58%
Localised support increases NPS by 1 point
40% reduction in OPEX
60% less system management time

Lower CAPEX and OPEX
Crowd-sourced resource pool
Natively scalable architecture
Market disruptive inputs

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Introduction to OCP Hardware

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Steve Helvie

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Creative Destruction - the process of breaking older conventions to accelerate movement to the future, without cutting off from the past.

Joseph Shumpeter (Economist)

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OEM

(Original Equipment Manufacturer)

Buys platform components from the manufacturer

Resells those components under their own brand name

Create products that can server the broadest possible market

Support and managed services

ODM/White Box

(Original Design Manufacturer or White Box)

Manufactures platform components

Provide full product development services

Can manufacture specialised solutions

Support centred on product

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ODM/White Box + Open Source

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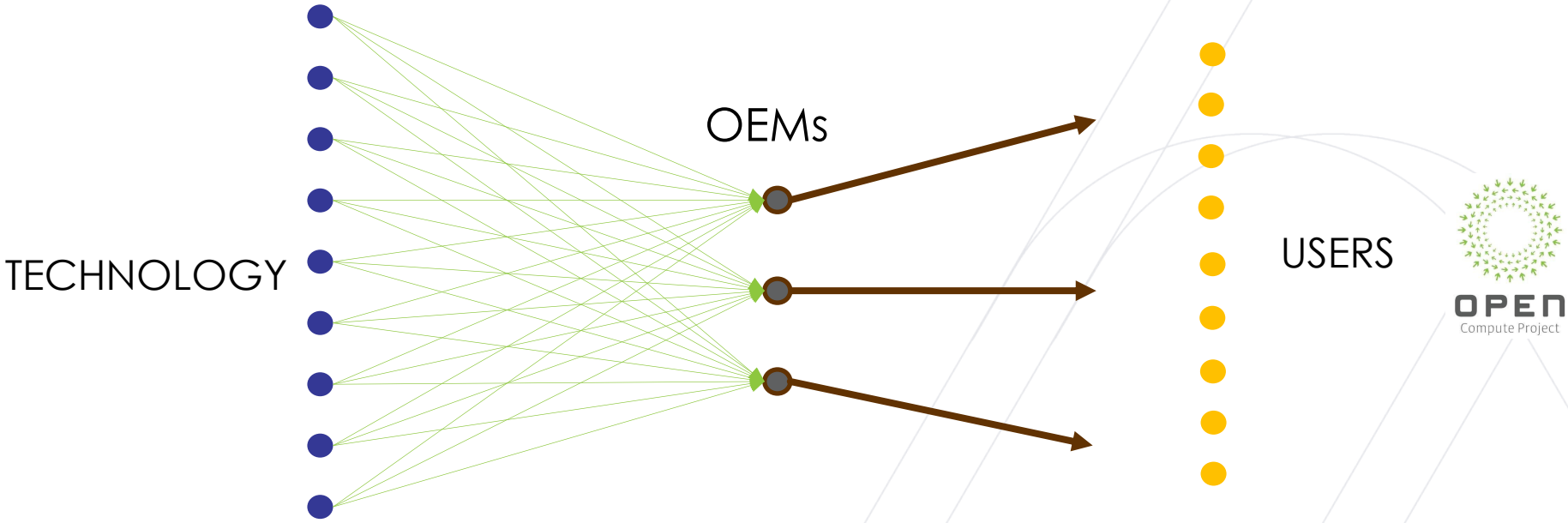
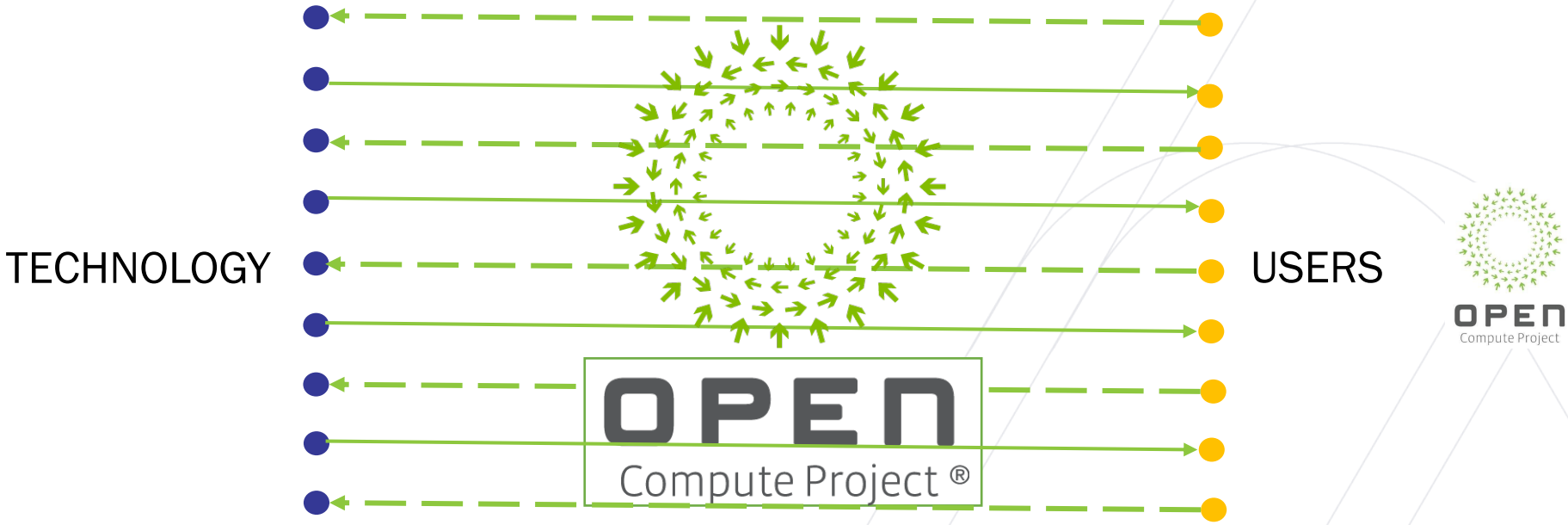
The old innovation pipeline



“Creative Destruction”



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January 2010

COMPANIES > FACEBOOK

Facebook to Build Its Own Data Centers

Facebook has decided to begin building its own data centers, and may announce its first facility as soon as tomorrow. The fast-growing social network has previously leased server space from wholesale data center providers.

Rich Miller | Jan 20, 2010

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What can we remove from the system?

Can we raise operating temperatures and have the servers survive?

Can we increase relative humidity operational ranges to make the system much more efficient?

Do we need a centralized power supplies?

Open Compute Project

A collaborative community focused on redesigning hardware technology to efficiently support the growing demands on compute infrastructure.

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150+ companies
189 contributions
6K engineers

150+ OCP Accepted™ & OCP Inspired™ Products

OCP Ready™ Facilities

OCP ACCEPTED™ OCP INSPIRED™ OCP READY™

Our Projects

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Networking

Server

Storage

Rack & Power

Advanced Cooling

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Data Center

Modular DC

Telco

openEDGE

HW Mgmt

Open System Firmware

HPC

Security

https://www.opencompute.org/projects

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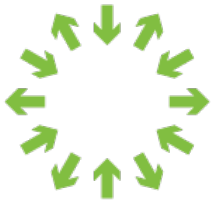

Efficiency

Scale

Impact

Openness

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Server bezels….gratuitous differentiation

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Tool less OCP vanity free open source cubby servers

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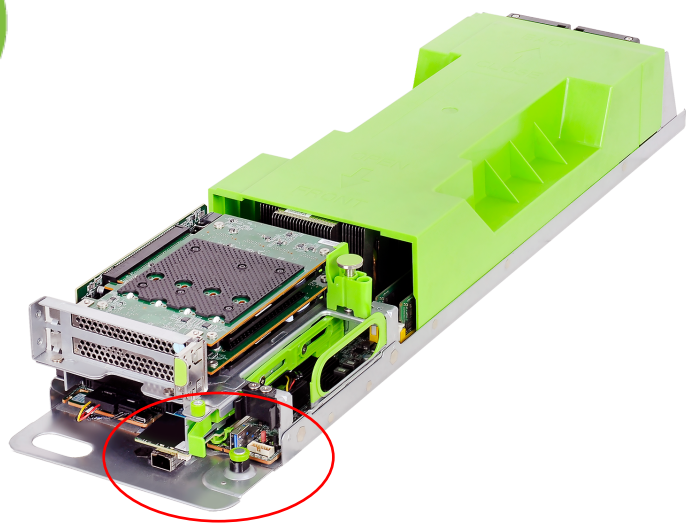

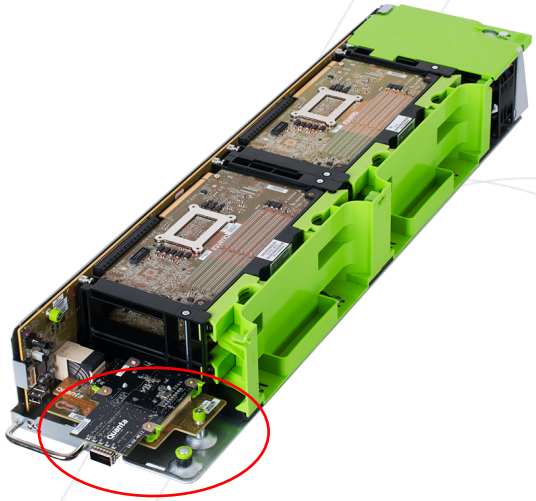

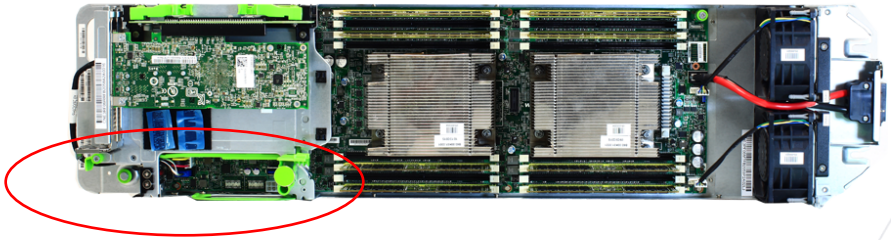

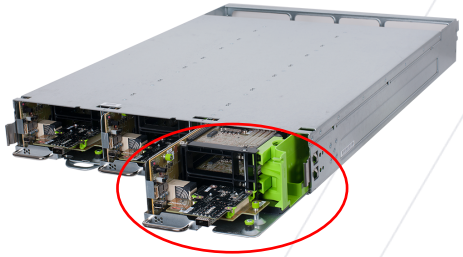

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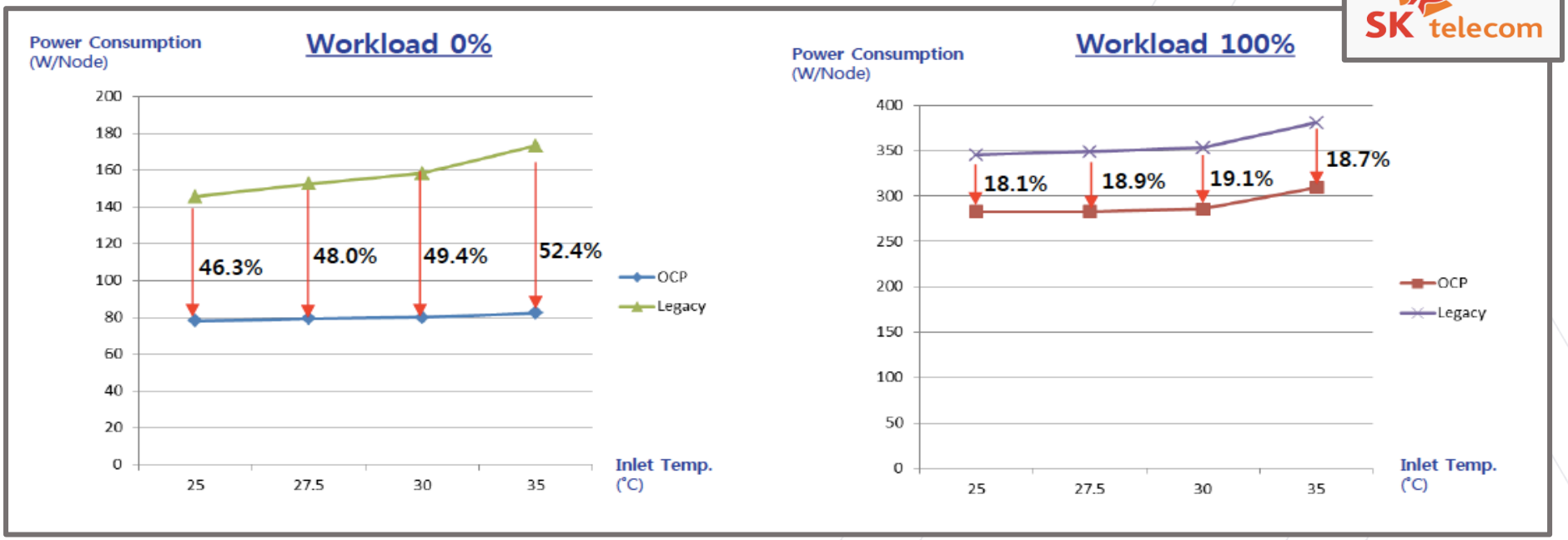
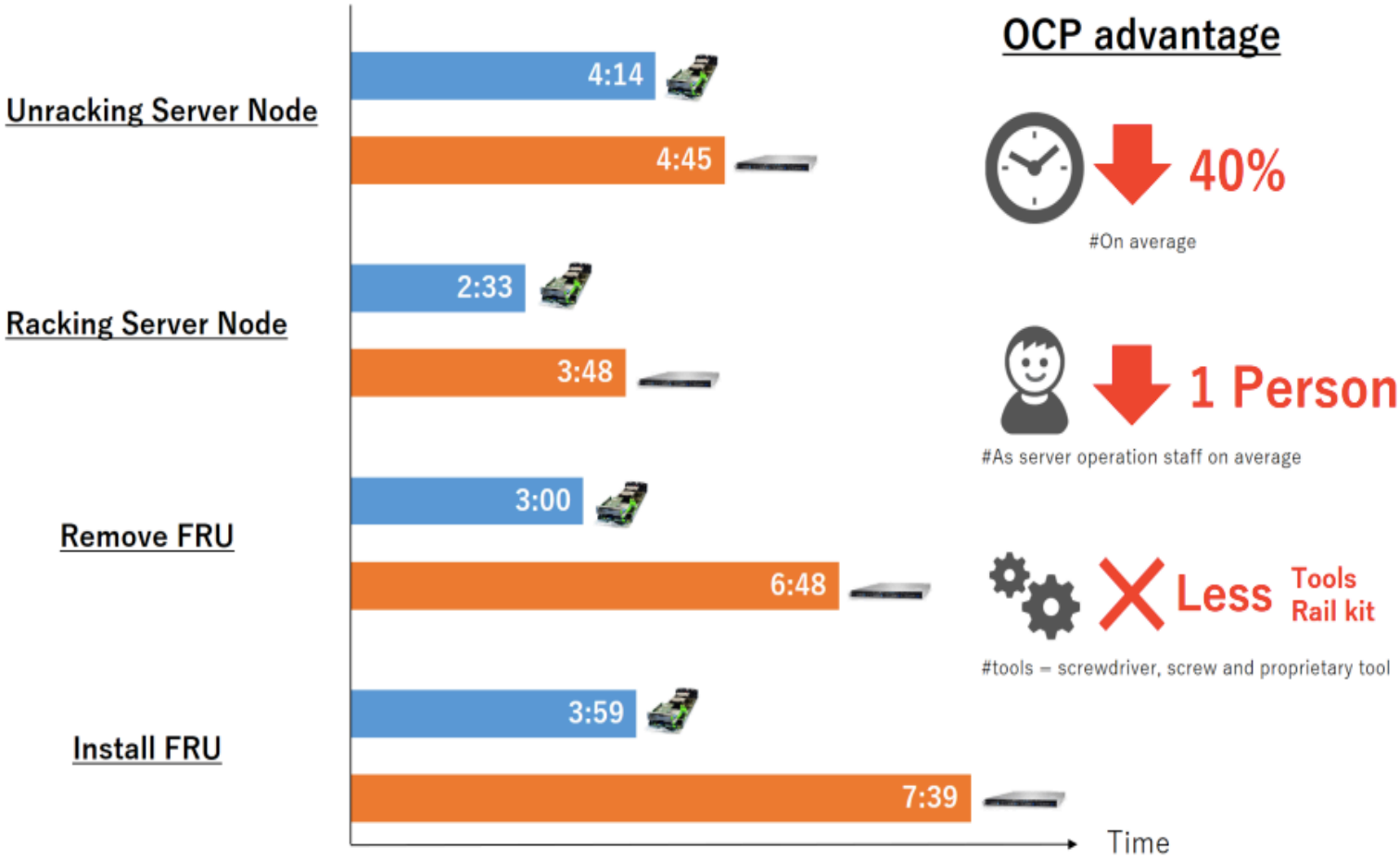
Open Rack Unit Innovations
Server Fans "Cube Law"

½ the speed
7/8th energy reduction

“Creative Destruction” of Server Efficiency



https://www.opencompute.org/events/past-summits



OCP advantage

40%

#On average

1 Person

#As server operation staff on average

Less Tools Rail kit

#tools – screwdriver, screw and proprietary tool

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YAHOO! JAPAN

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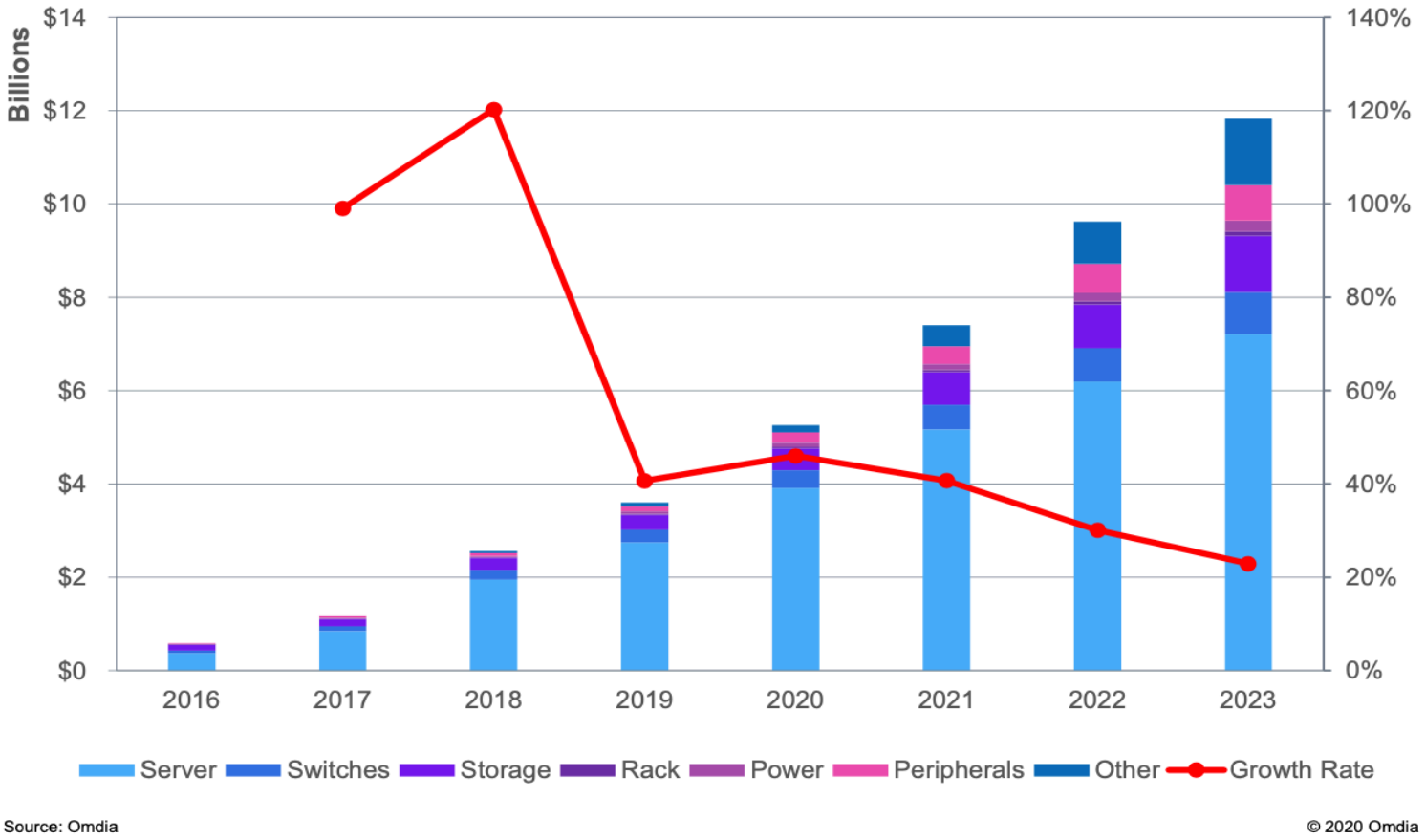
https://irideos.it/en/

London Internet Exchange

OCP revenue expected to top $11B in 2023*



Source: Omdia

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EMEA sees growth due to telco and circular IT

Co-processors emerging category

Need DC building changes – more dense racks

* Does not include OCP board member companies

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Server Shipments and Market Share Q4 2019

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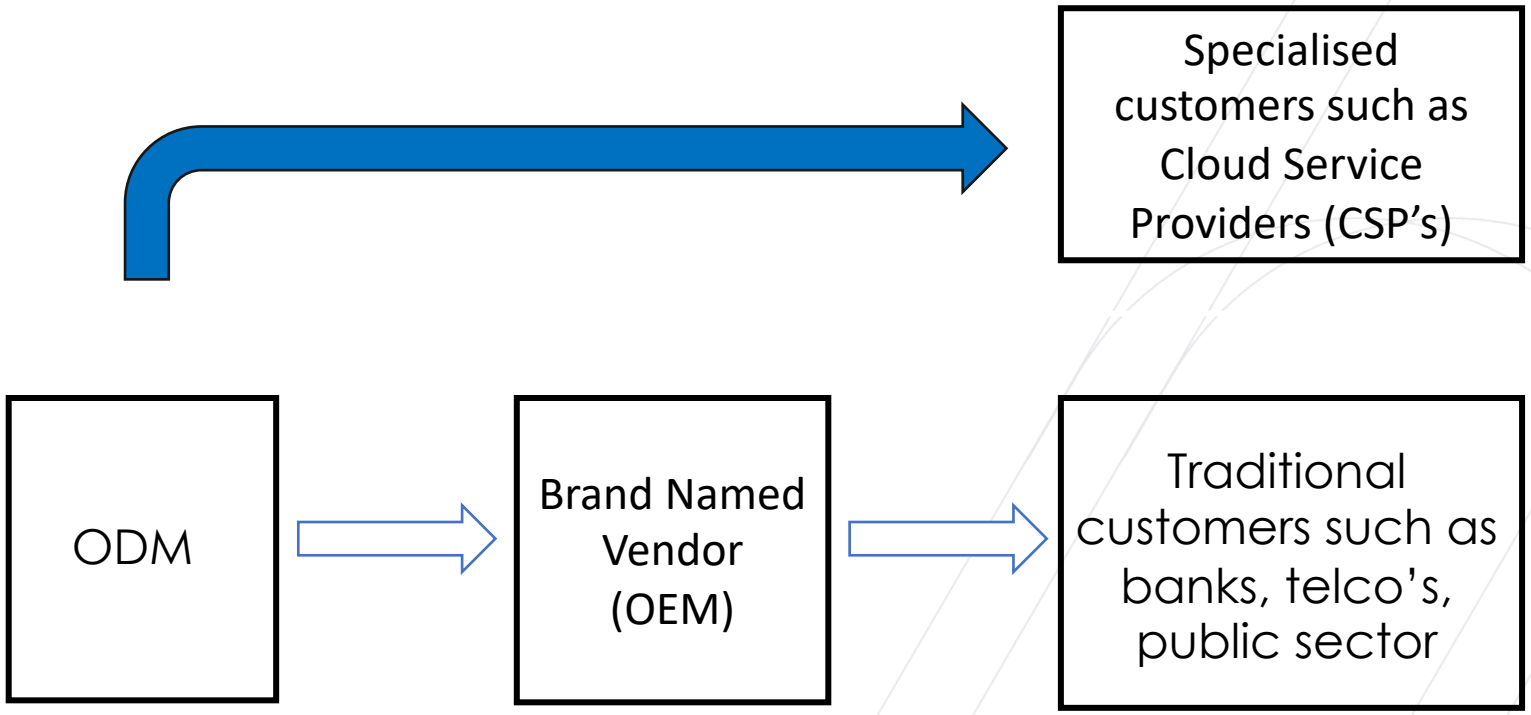
Top 5 Companies, Worldwide Server Unit Shipments, Market Share, and Growth, Fourth Quarter of 2019

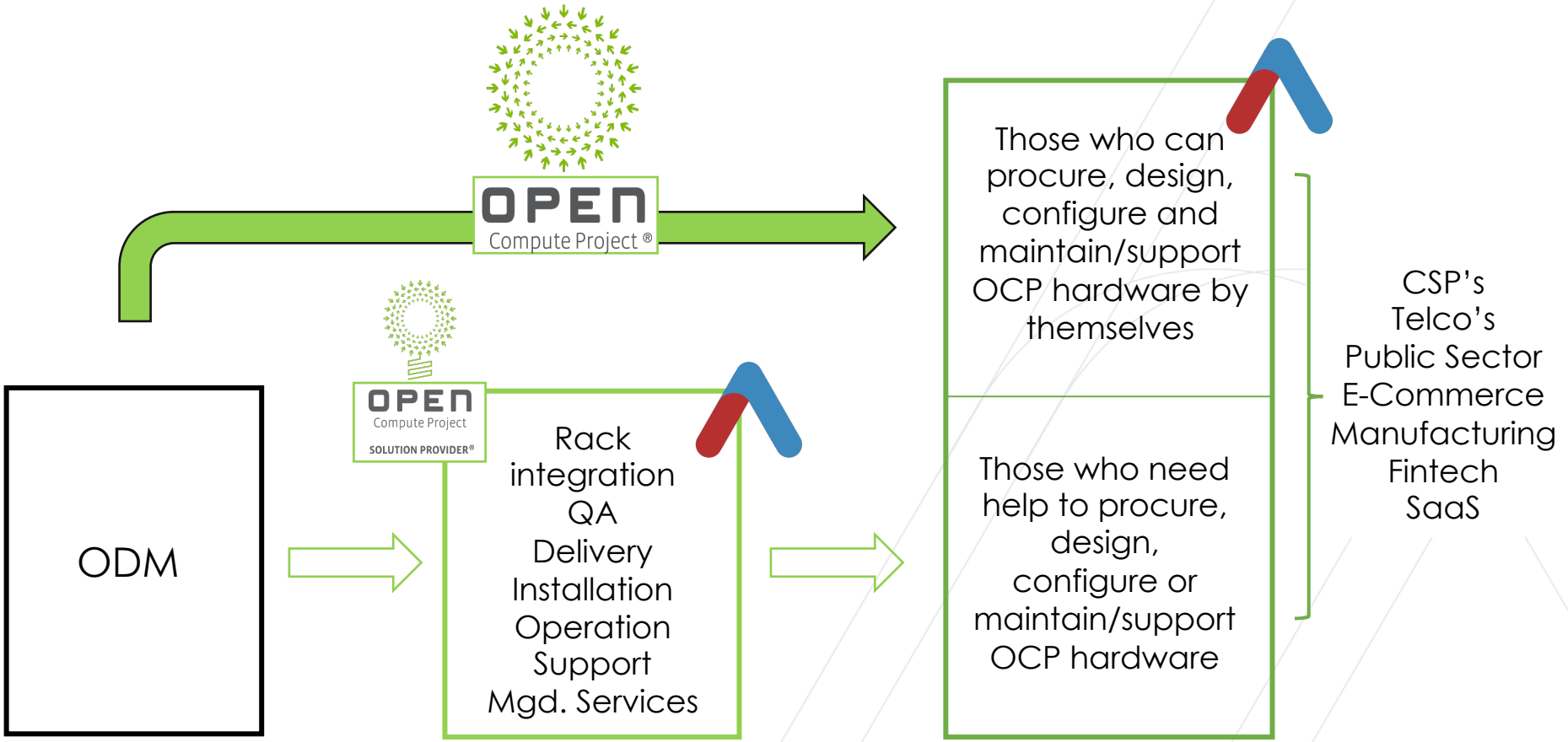
Company	4Q19 Unit Shipments	4Q19 Market Share	4Q18 Unit Shipments	4Q18 Market Share	4Q19/4Q18 Unit Growth
1. Dell Technologies	549,488	16.1%	580,579	19.4%	-5.4%
2. HPE/New H3C Group[a]	507,228	14.9%	484,668	16.2%	4.7%
3. Inspur/Inspur Power Systems[b]	270,567	8.0%	247,600	8.3%	9.3%
T4. Lenovo*	233,896	6.9%	190,721	6.4%	22.6%
T4. Huawei*	216,734	6.4%	211,618	7.1%	2.4%
ODM Direct	1,054,743	31.0%	689,394	23.1%	53.0%
Rest of Market	570,667	16.8%	582,070	19.5%	-2.0%
Total	**3,403,323**	**100%**	**2,986,651**	**100%**	**14.0%**

Source: IDC Worldwide Quarterly Server Tracker, March 12, 2020

Traditional Delivery Model



OCP Delivery Model



“Creative Destruction” in Data Centres across Africa

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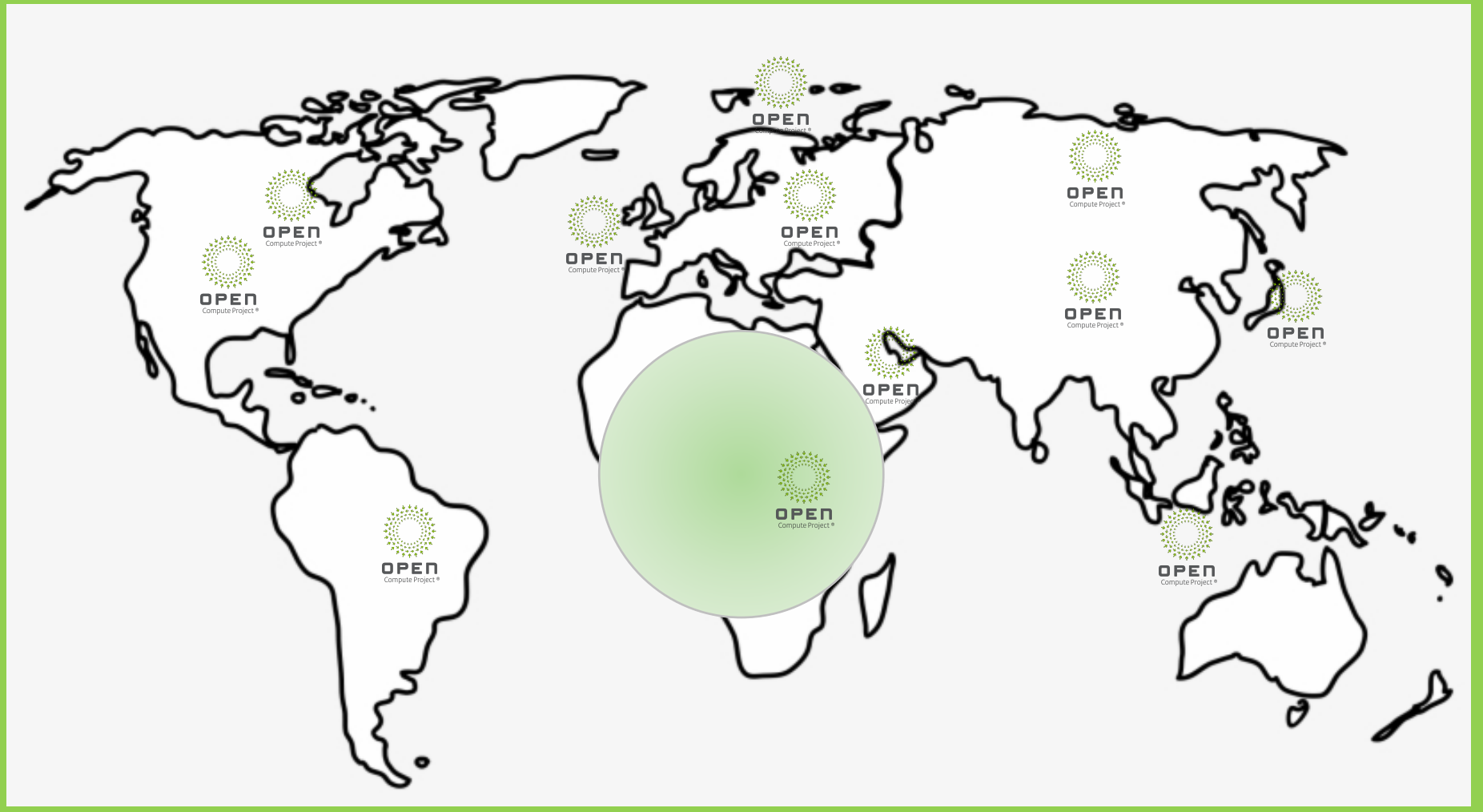

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Questions?

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