OPEN
Compute Project

The Future is Open

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VP of Channel

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Agenda

How did it start?

How does it work?

Is it right for me?

Japan is growing…..

EQUINIX

"Equinix is building its fifth Tokyo data centre just a year after it built the fourth one here."
- *November 2014*

DIGITAL REALTY
Data Center Solutions

" Digital Realty eyes entry into Japan" - *October 2014*

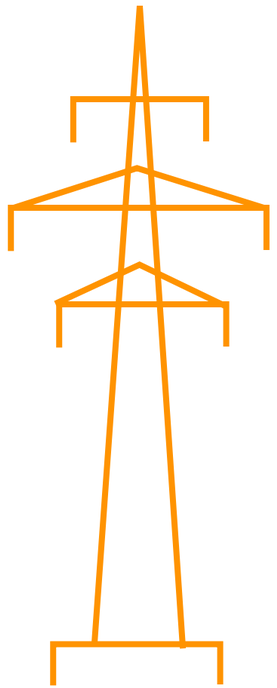
vmware®

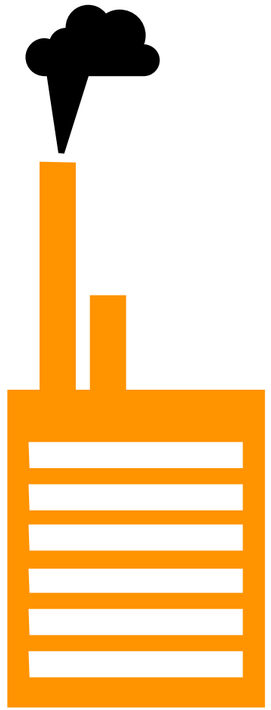
" VMWare to open data centre in Kyushu Japan" - *July 2014*

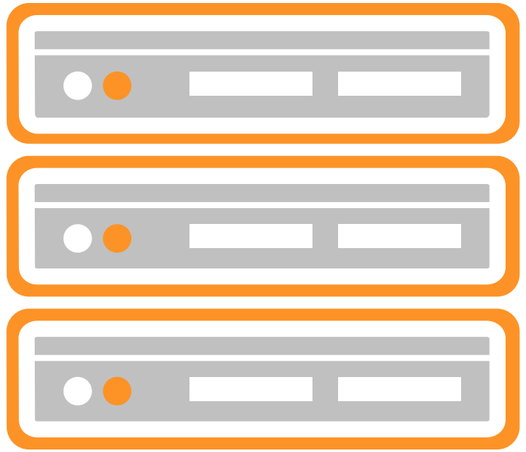
" Microsoft launches two Japan data centres for Azure" - *February 2014*

How did it start?

How did it start?



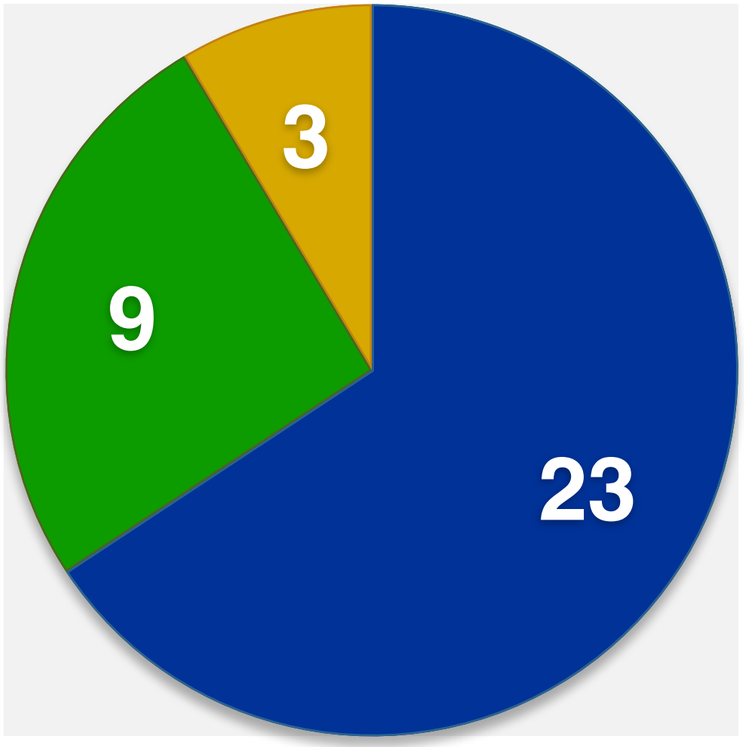




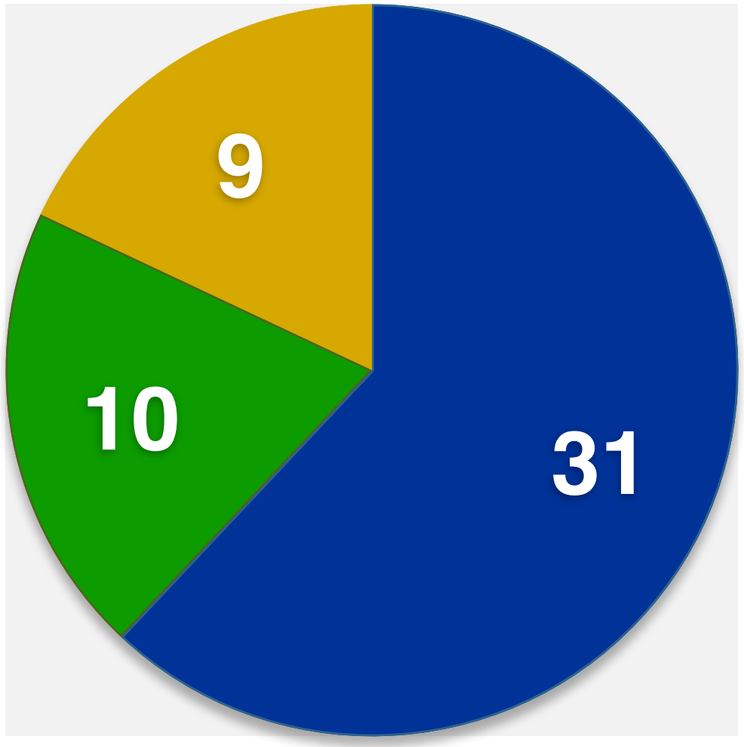
Goal - develop efficient, low-cost servers and data centres that follow the open source model.

Data Centre Investment

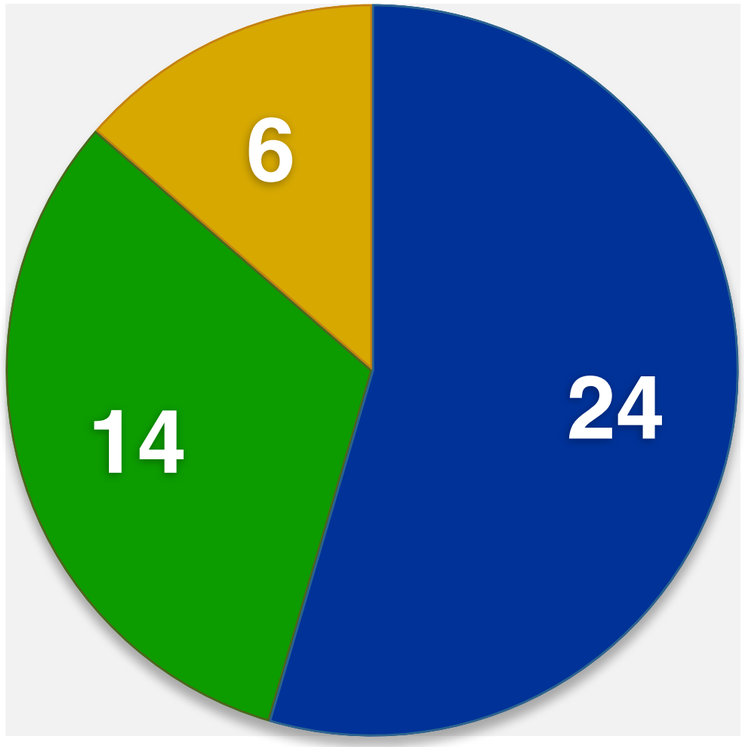
Asia



Europe



N. America



Local

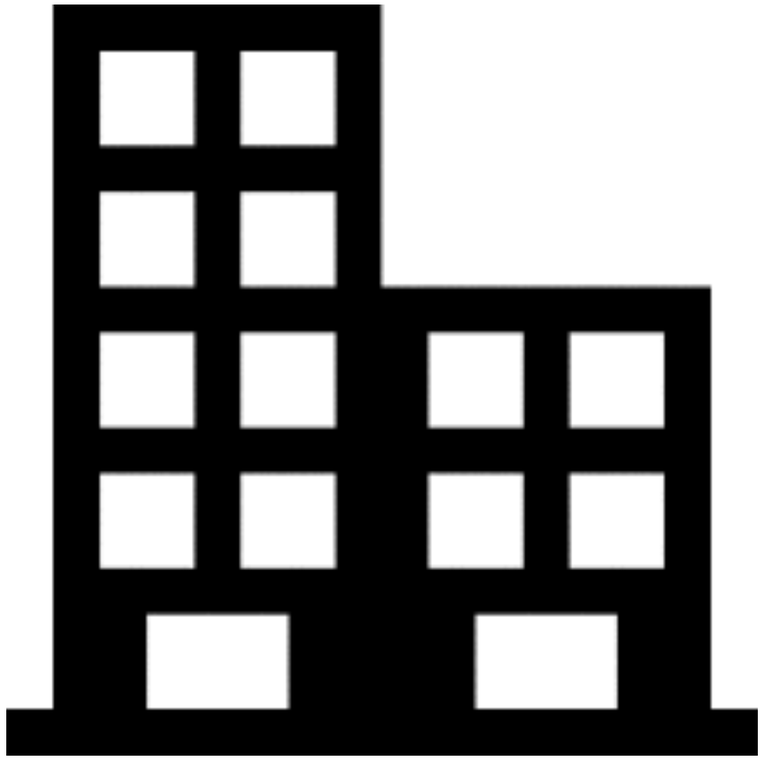
Regional

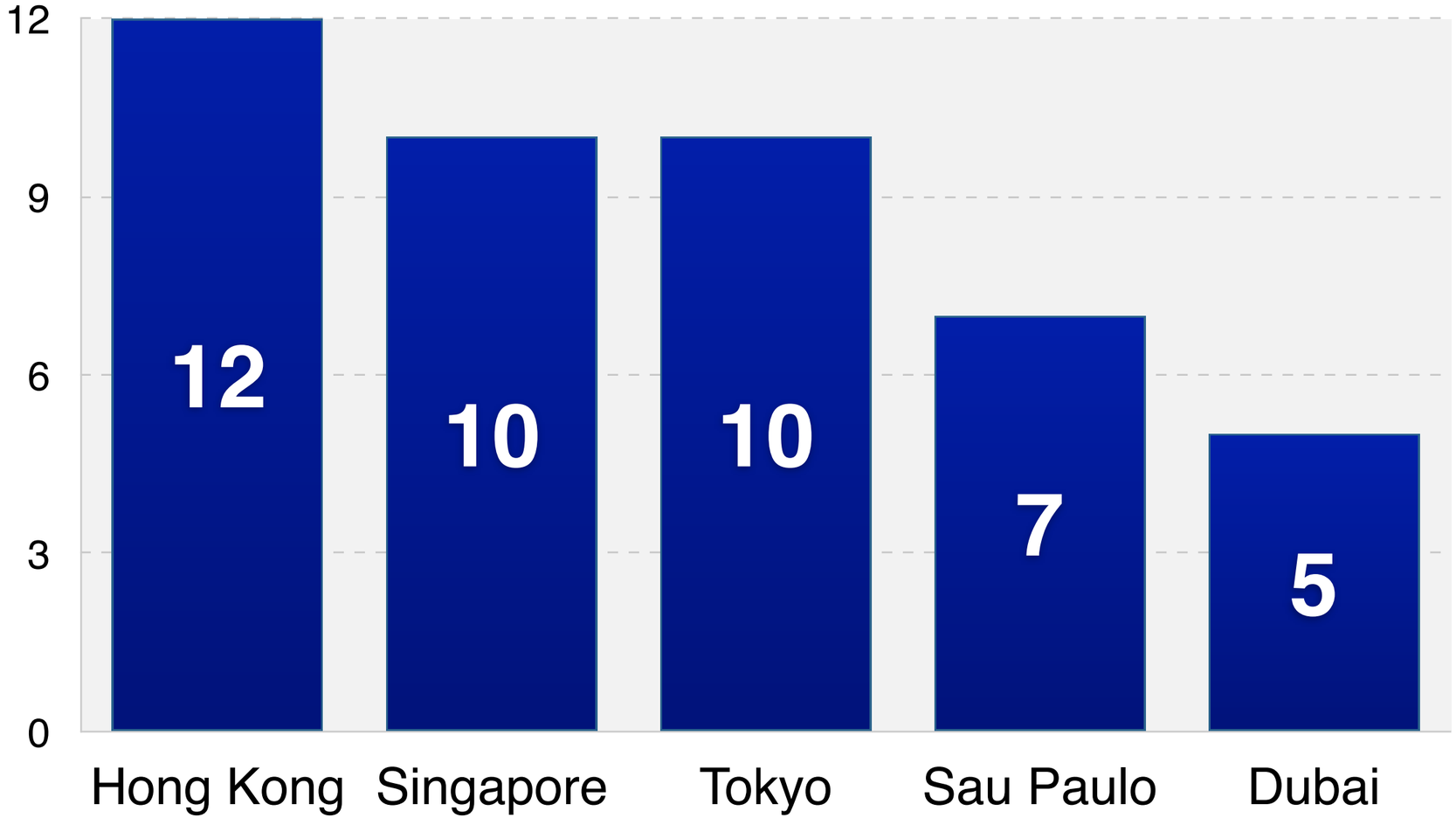
Global

N = Billions of USD

Source: Data Centre Dynamics

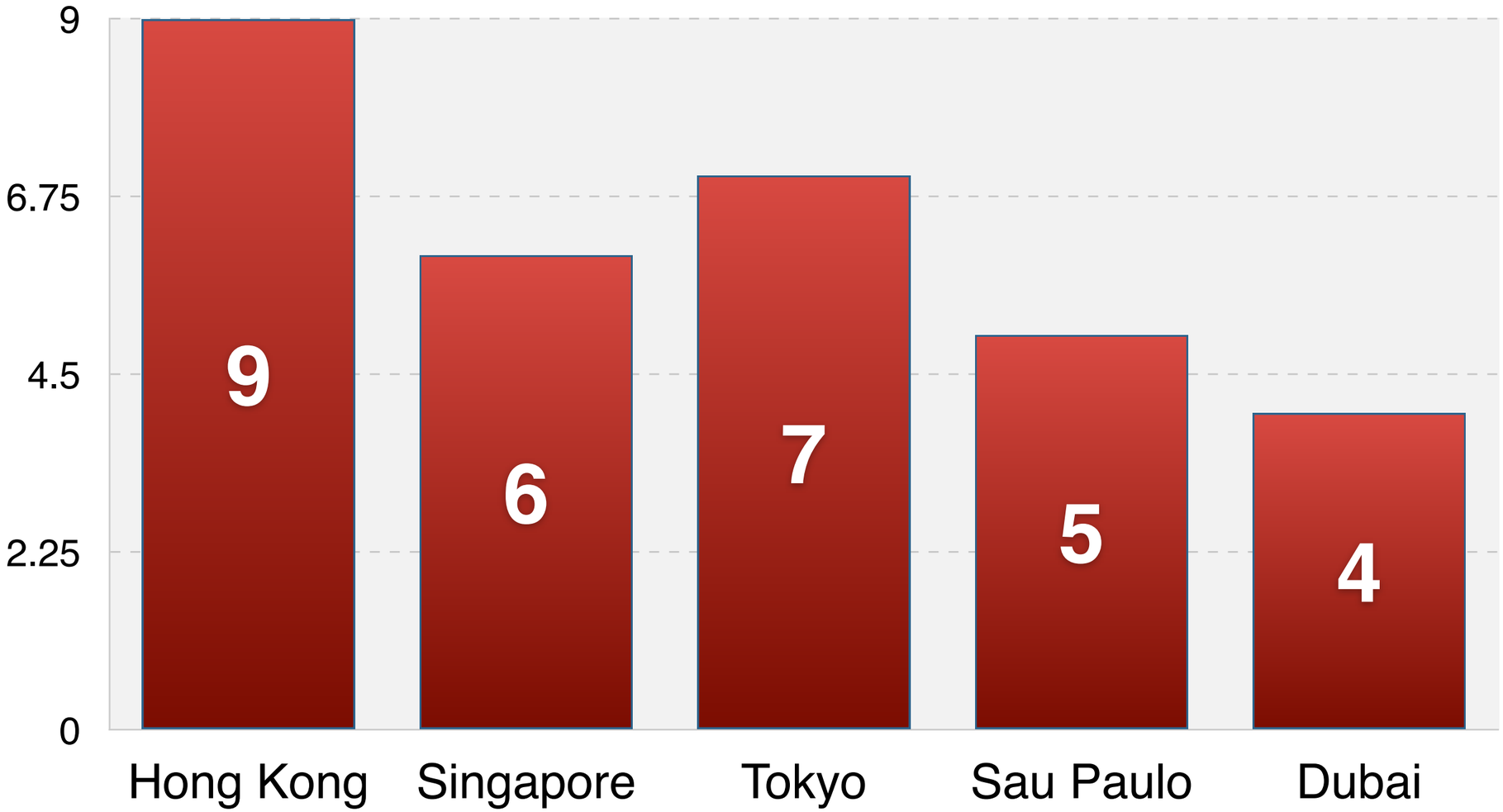
Average Age (Years) - Buildings





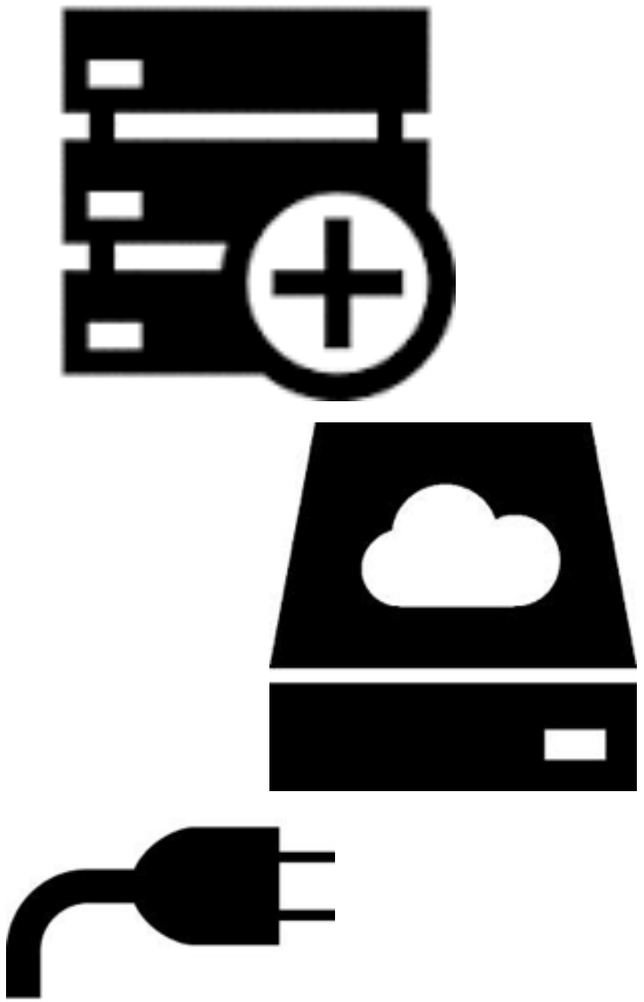
Source: Data Centre Dynamics

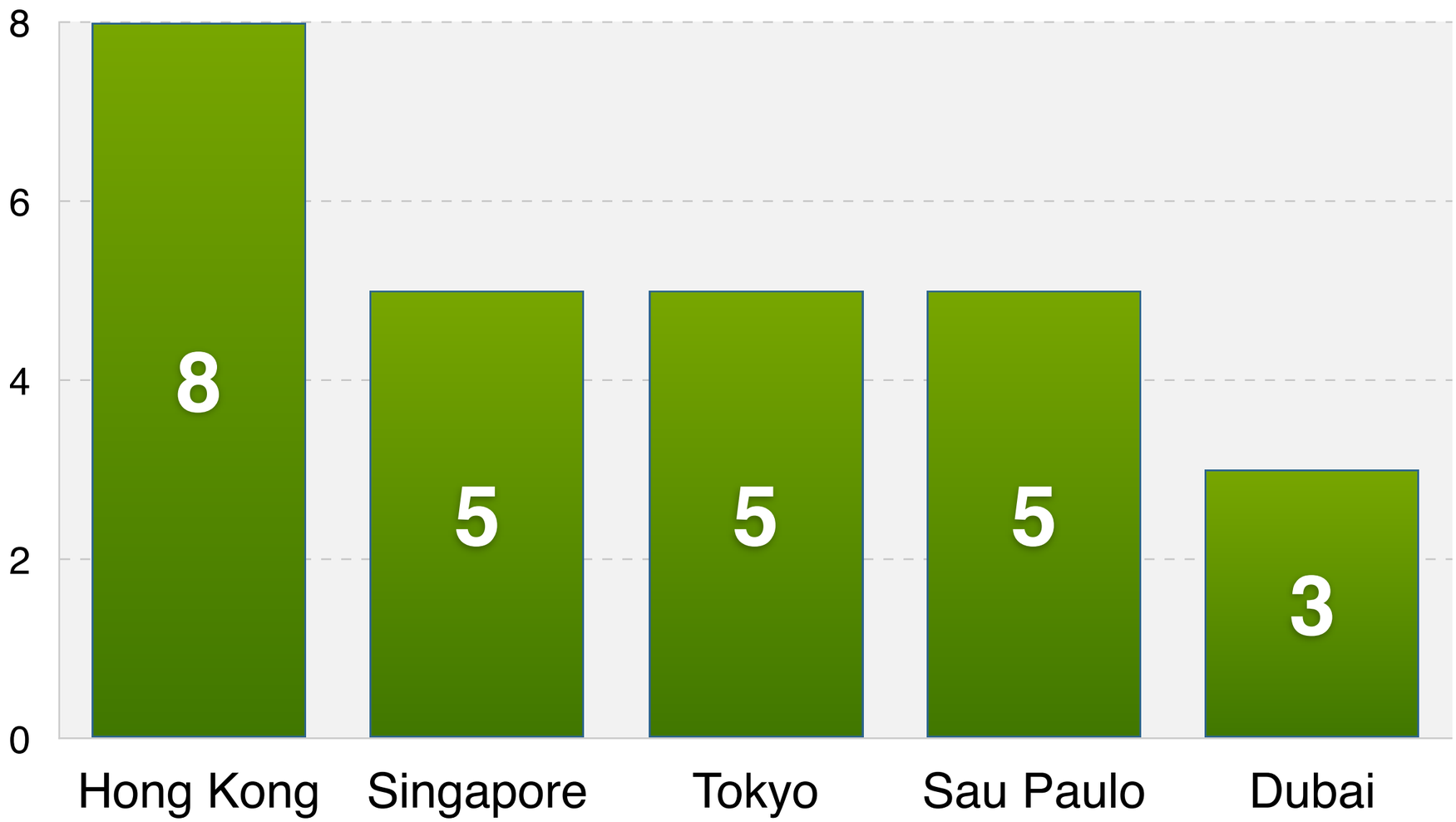
Average Age (Years) - Equipment



Source: Data Centre Dynamics

Average Age (Years) - IT Networks

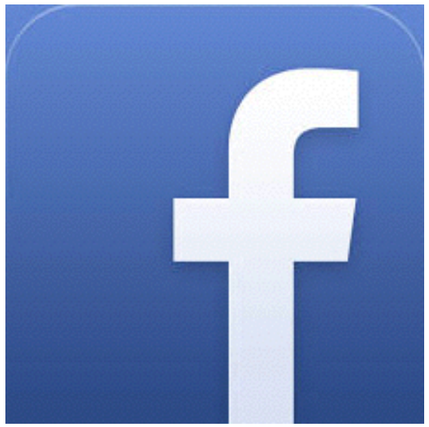




Source: Data Centre Dynamics

Open Compute powers cloud scale data centres

1.35 billion users per month



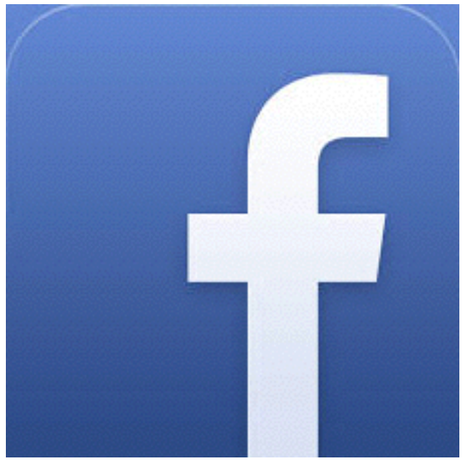
1.12 billion mobile users per month

350 million photos uploaded per day

6 billion likes per day

Benefits of Open Compute at Facebook

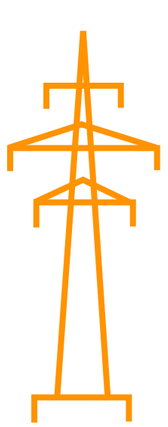
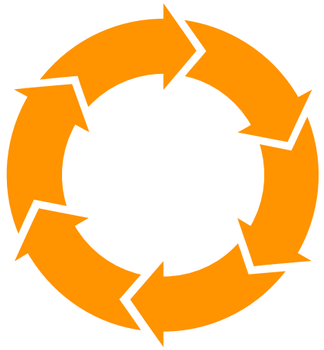
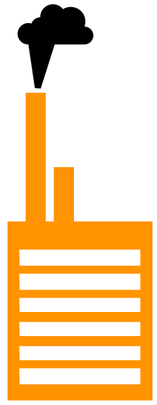
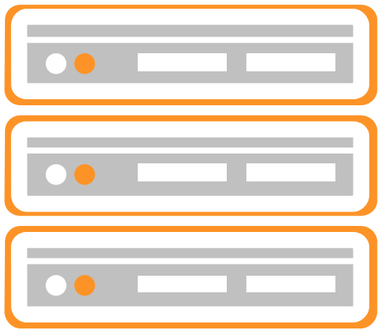
Compared to traditional servers…..



38% Increase in Power Efficiency

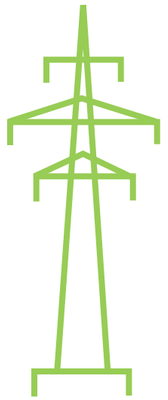
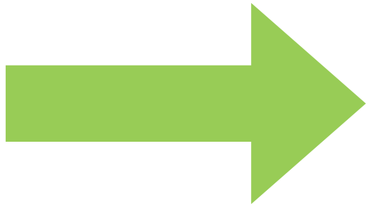
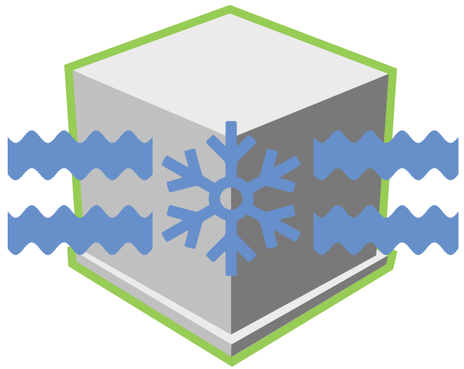
24% Reduction in Costs

Industry Standard

1.9
PUE

Open Compute Project

1.07
PUE

Benefits of Open Compute at Microsoft

Compared to traditional servers…..

40% Cost Savings

15% Increase in Power Efficiency

50% Improvement in Deployment & Service Times

Public Cloud, Private Cloud & Managed Hosting running > 100K servers

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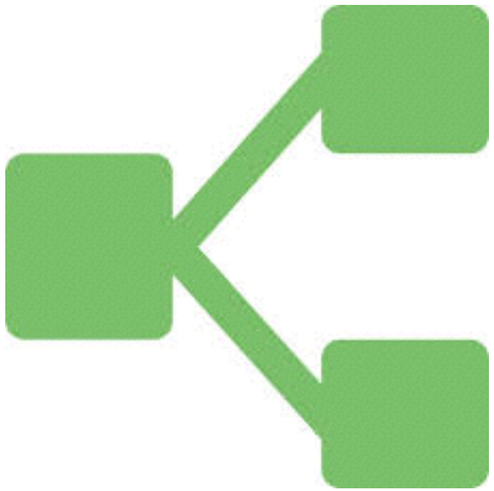
Open Compute Adoption

How Does Open Compute Work?

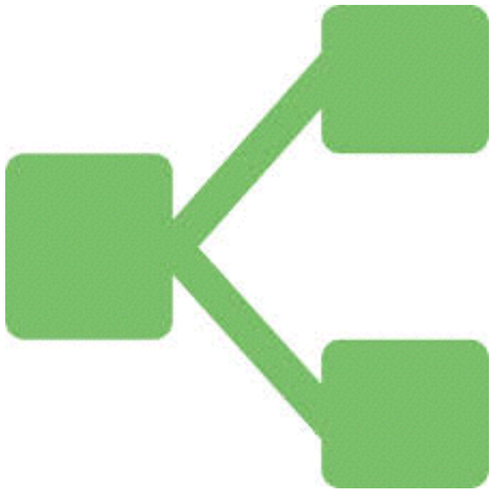


Structure

Contributions

Enablement

How Does Open Compute Work?



Structure

Contributions

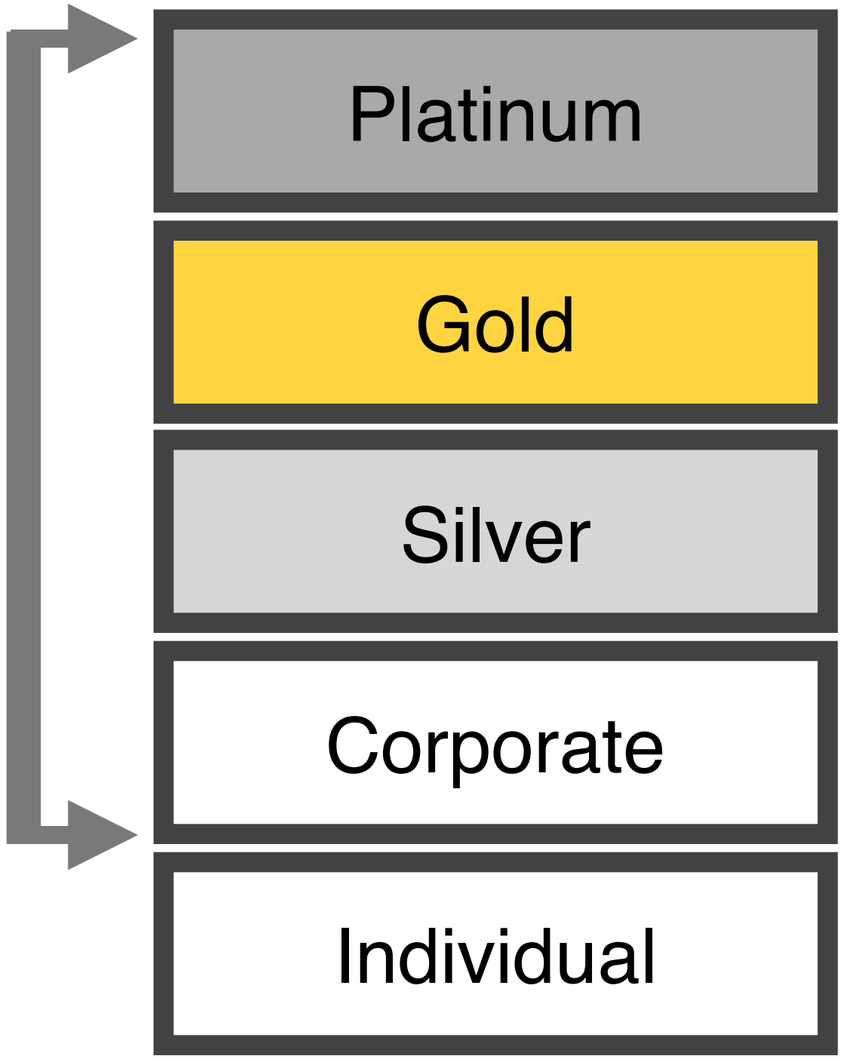
Enablement

3300 and growing participants

Over 150 Companies and Growing….

Membership Structure

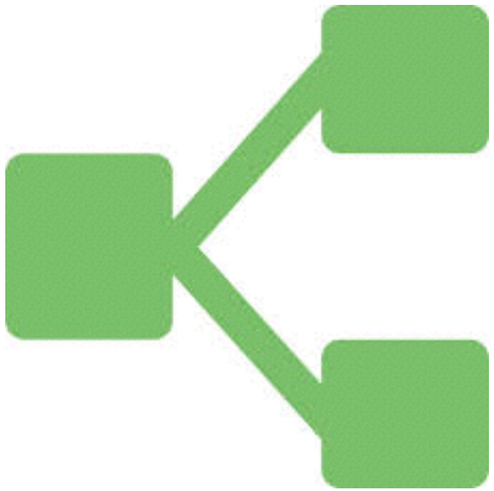
Tiered Membership



opencompute.org

“Get Involved Section”

How Does Open Compute Work?



Structure

Contributions

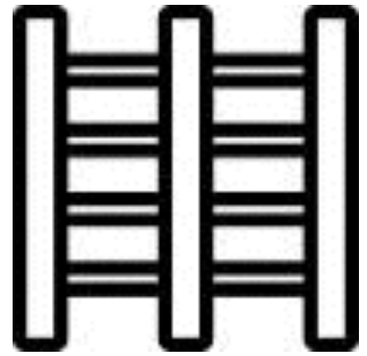
Enablement

Technologies We Govern

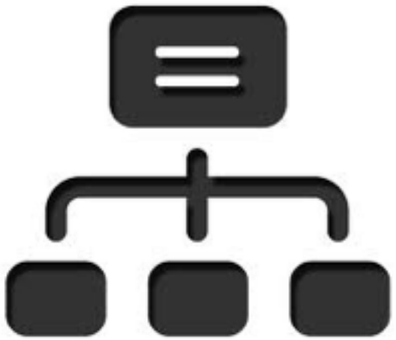
Server

Storage

Data centre



Open Rack



Networking

Hardware Management

Certification

HPC

Technology Contribution Process

Member makes a contribution

Including technical documents

Reviewed by community

Voted by incubation committee

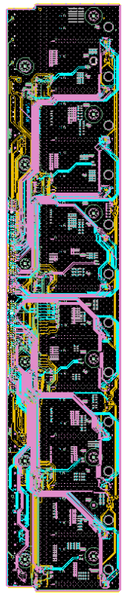
Posted on opencompute.org

Available to the public

The Latest Contribution from Microsoft

Open Source Code

Chassis management
Operations Toolkit
Interoperability Toolkit



Board Files & Gerbers

Power Distribution Backplane
Tray Backplane

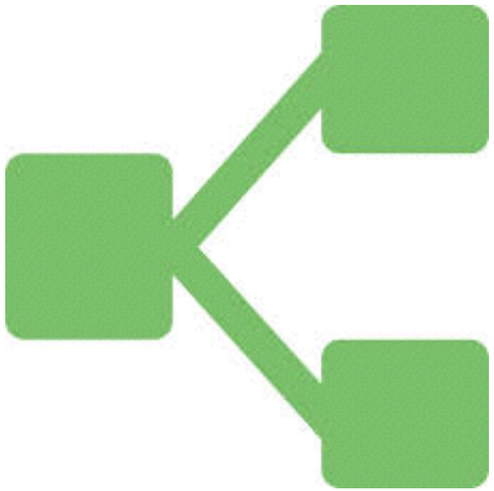
Specifications

Chassis, Blade, Mezzanines
Management APIs
Certification Requirements

Mechanical CAD Models

Chassis, Blade, Mezzanines

How Does Open Compute Work?



Structure

Contributions

Enablement

Enablement - Community

New Regional Communities

2 summits per year (US & International)

Engineering Workshops

Consuming Open Compute

1. Do it yourself

Download documents

Engage an ODM

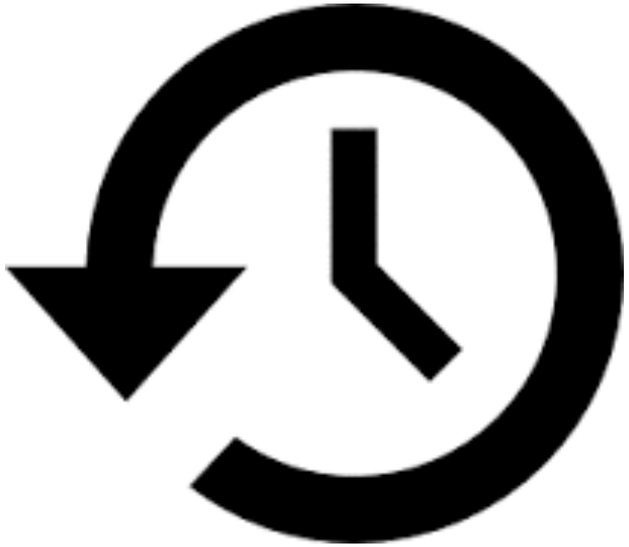
2. Solution Provider

Engage a provider

Delivers full solution

Is Open Compute Right for My Organisation?

Consolidate



Retrofit

New Build

Is Open Compute Right for My Organisation?

Consolidate

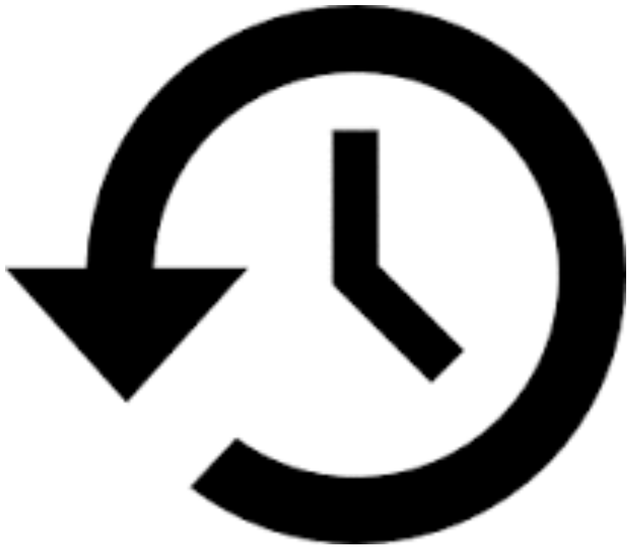
Example: High Density Storage

Is Open Compute Right for My Organisation?

Seagate

We turn on ideas

Is Open Compute Right for My Organisation?



Retrofit

Examples:

IT Equipement: Leverage existing Racks - 19”

Facilities: Reduce number of Transformers & Rectifiers

Is Open Compute Right for My Organisation?

New Build

Example: 21” or 19”

Is Open Compute right for me?

Not just for Hyper Scale
companies like Facebook and Microsoft

Appetite for Open Source

Longer term view of TCO

Start testing OCP in CTC Lab

THANK YOU