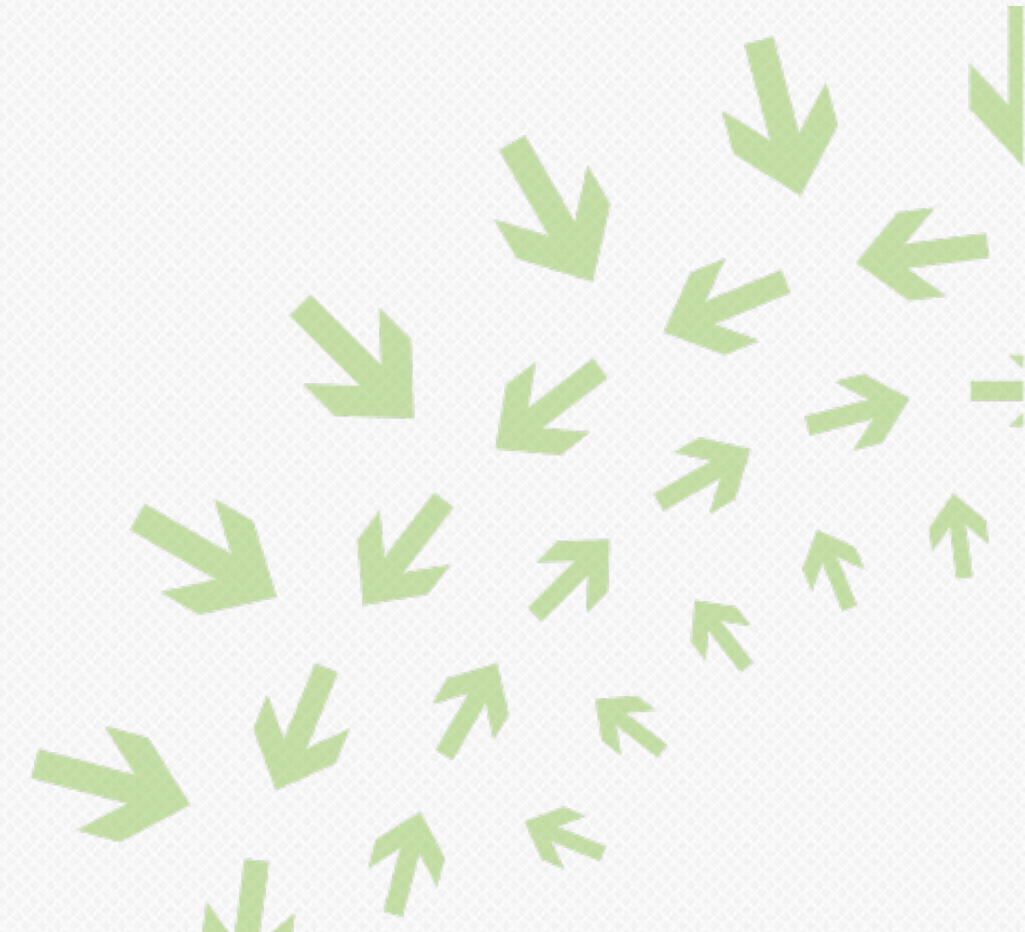




Open: Broader and Deeper

A Vision for the Future of Open Hardware Development

Aaron Sullivan
Rackspace
Senior Director and Distinguished Engineer



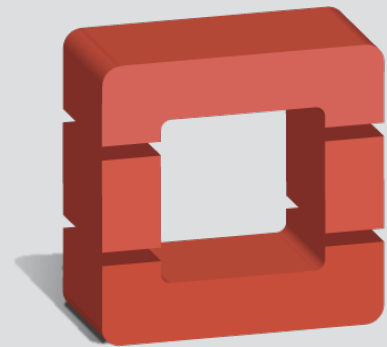




OUR PROGRESS

Vertically Integrated Open Stacks

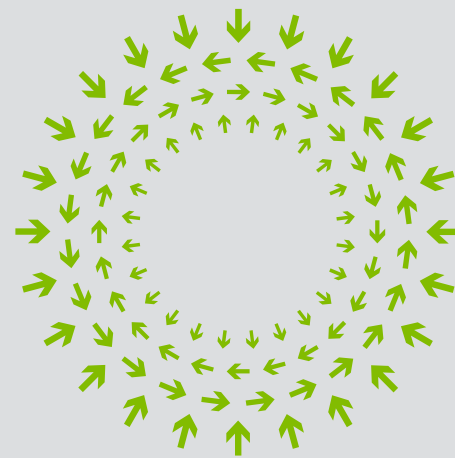
Ironic & Nova



openstackTM
CLOUD SOFTWARE

&

Quanta Rackgo X
OCP Platform



OPEN
Compute Project

=

OnMetal



RACKSPACE
OnMetal
CLOUD SERVERS



Adoption is Accelerating

vmware®

&

Quanta Rackgo X
OCP Platform



=



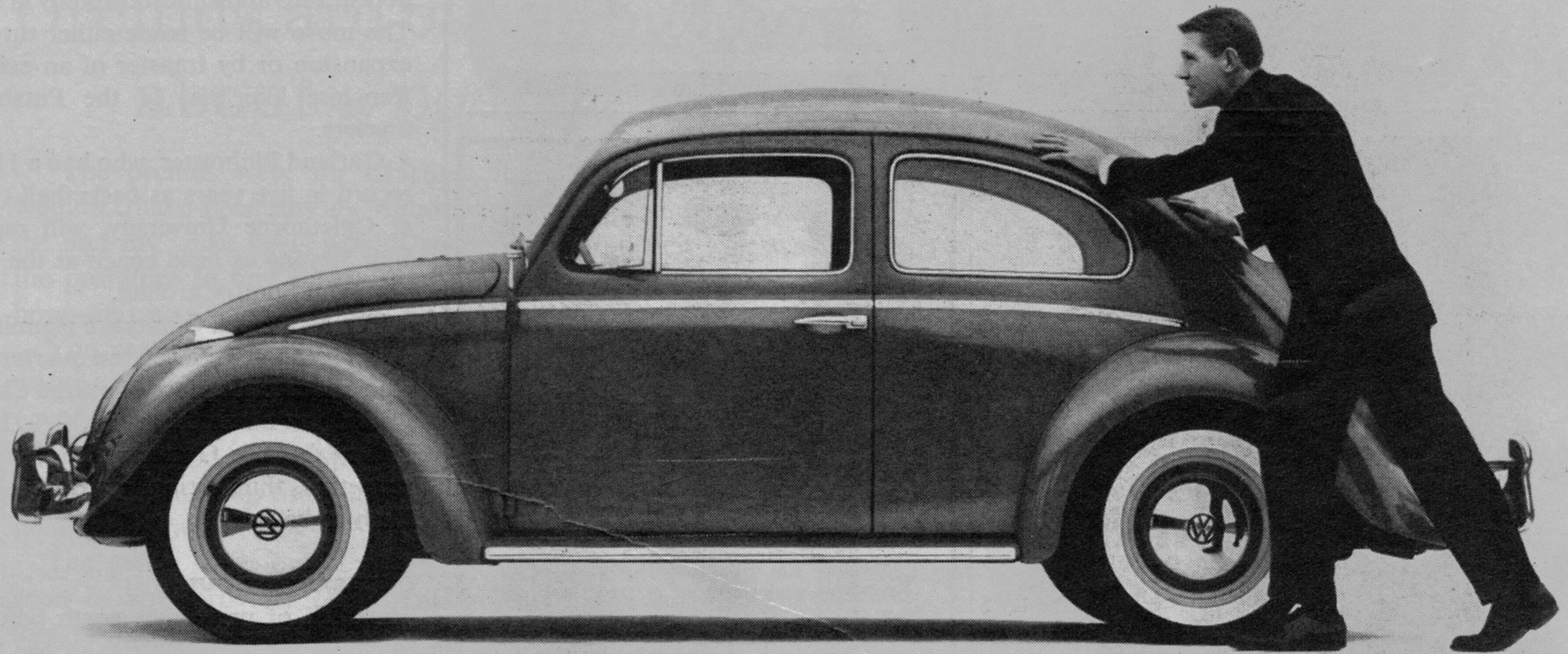


EVOLUTION OF THE CLOUD

Where We Are Today. Infrastructure & Developers. Where We're Going.



What the Cloud Wants



What the Cloud Has

1962 VOLKSWAGEN OF AMERICA, INC.

And if you run out of gas, it's easy to push.



What the Cloud Needs



The Journey to Get There...

FANTASTIC FOR
STARTING QUICKLY

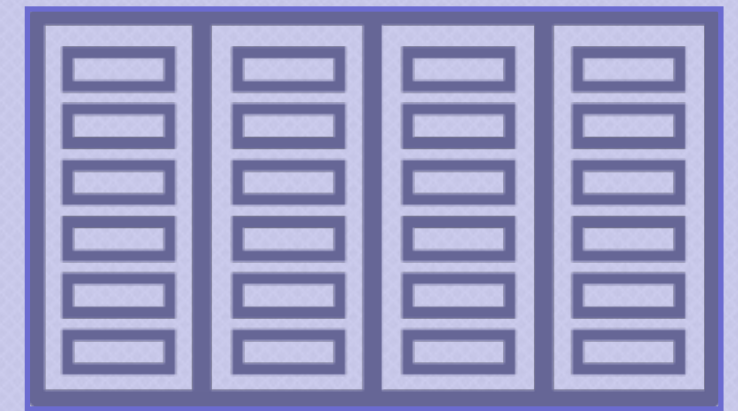


GROW

PROTOTYPE

OPTIMIZE

COLO

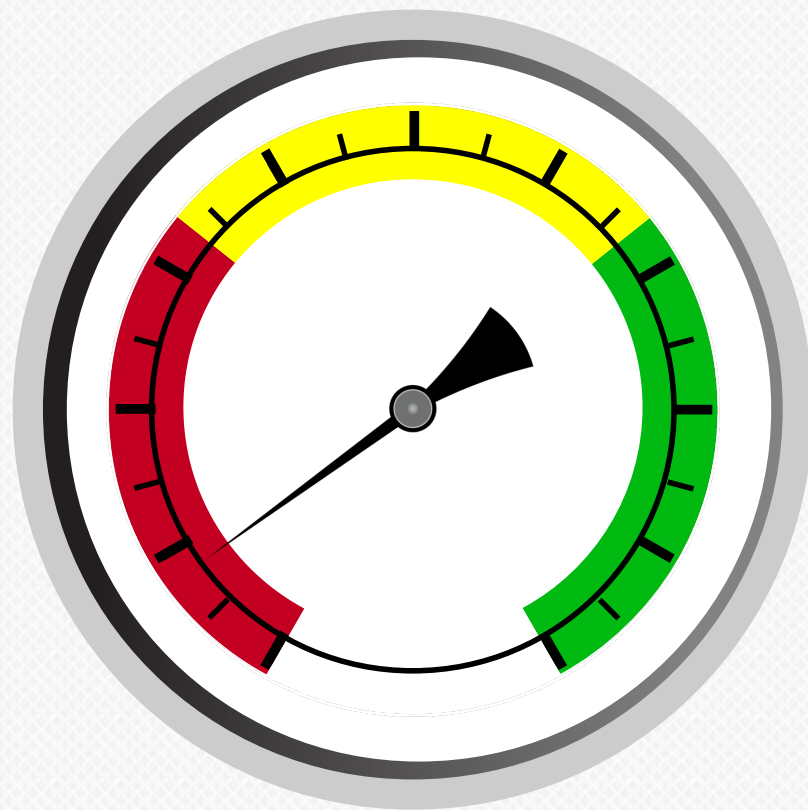


FANTASTIC FOR
RUNNING AT
SCALE

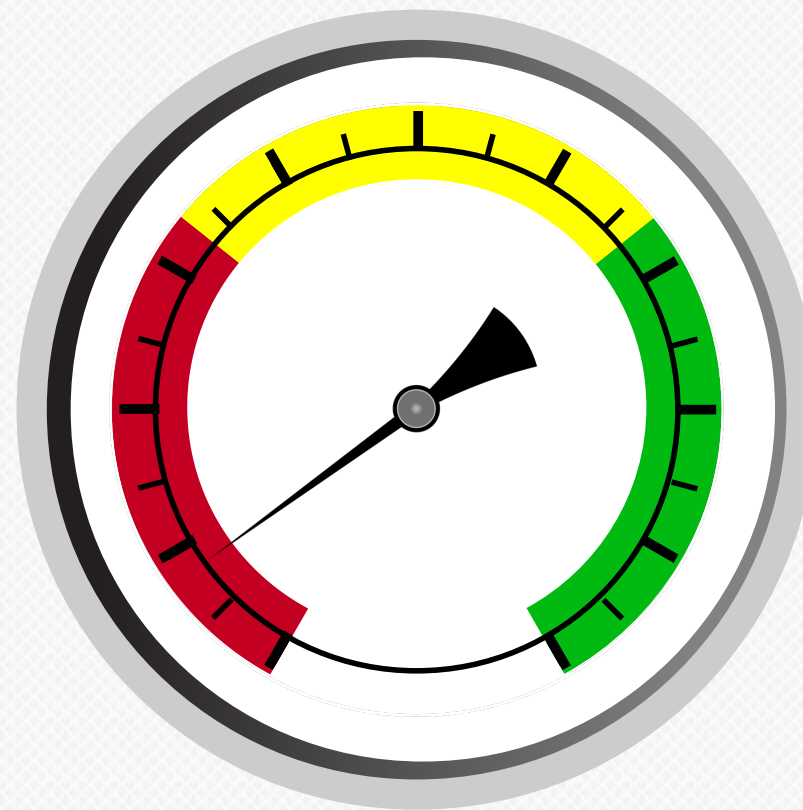


Multi-tenant Cloud at Scale Solution

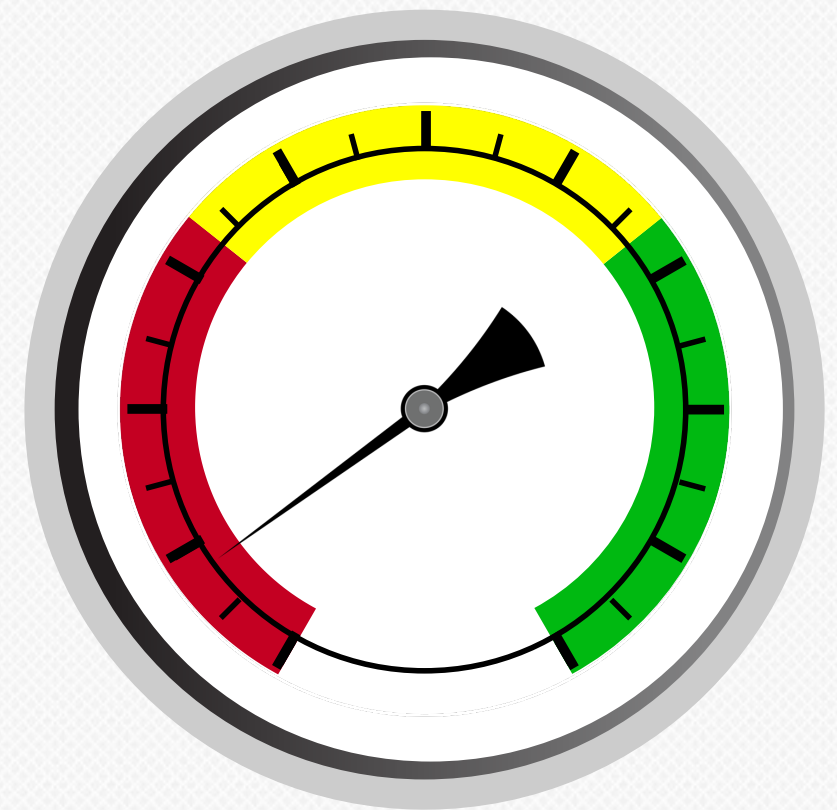
BEHAVIOR



PERFORMANCE



AVAILABILITY



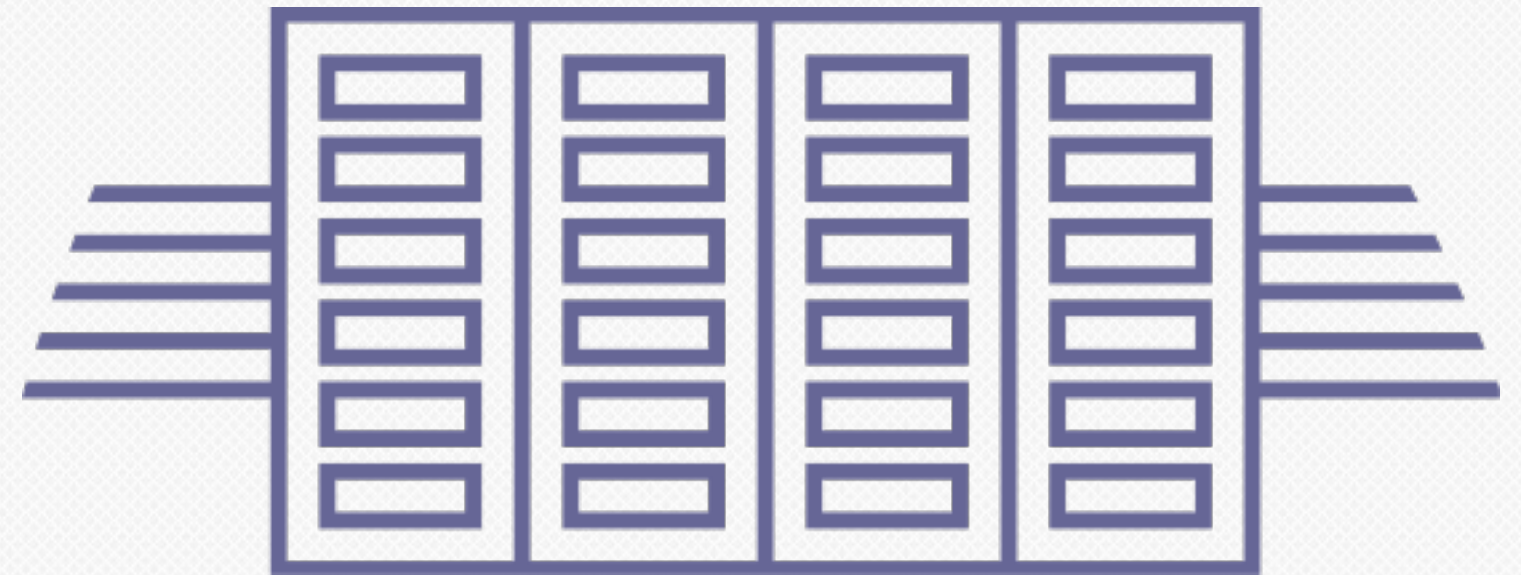
The Big Tradeoffs



MULTI-TENANT CLOUD

~~simple to scale~~
elastic

VS.



COLOCATION

simple to scale
~~elastic~~

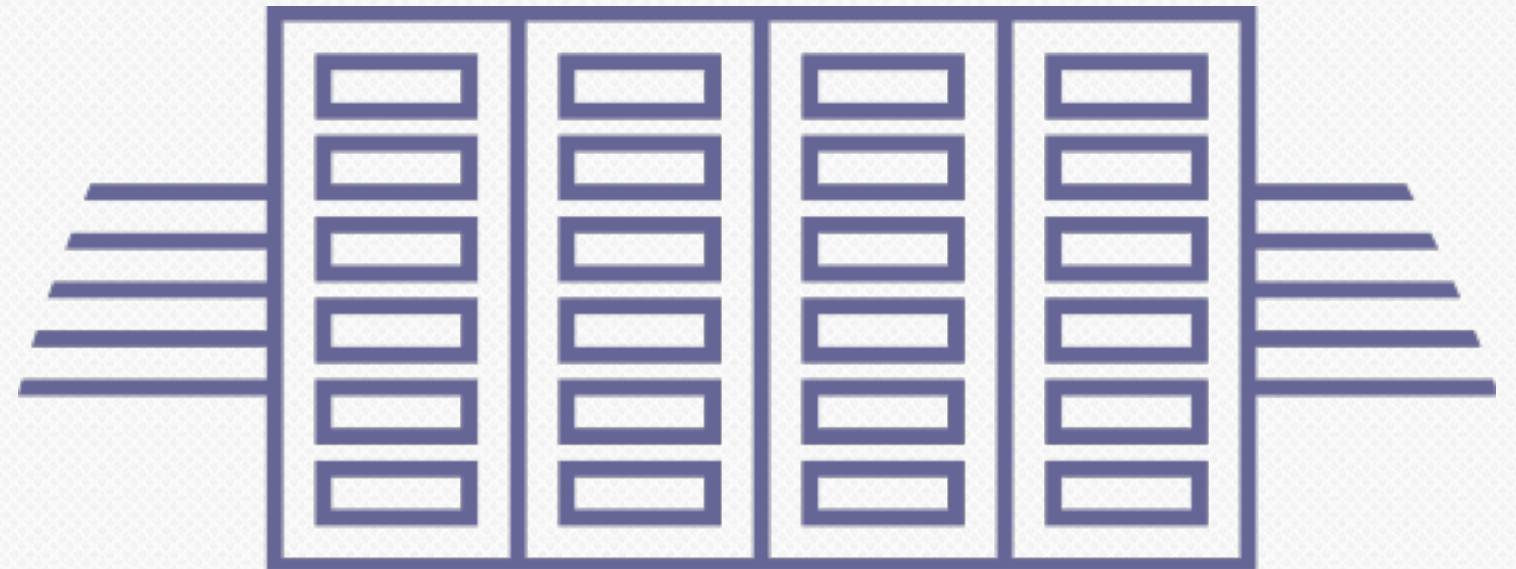


How About the Best of Both?



MULTI-TENANT CLOUD
Elastic

+



Simple to Scale
COLOCATION



“We’ve all been trained to think of the cloud as generic virtual machines on demand. VMs have had their decade. The future ‘Cloud’ will be built with containers deployed across bare-metal servers provisioned via API. We believe Rackspace’s OnMetal service is the future of Infrastructure as a Service.”



PANTHEON — Zach Rosen, CEO & Co-founder, Pantheon Systems, Inc.

A man in blue overalls is leaning over the front of a yellow vintage car, working on the engine. The car's hood is open, and the man is wearing brown shoes. The car is parked on a city street with other vehicles and pedestrians in the background. A green banner with white text is overlaid at the bottom of the image.

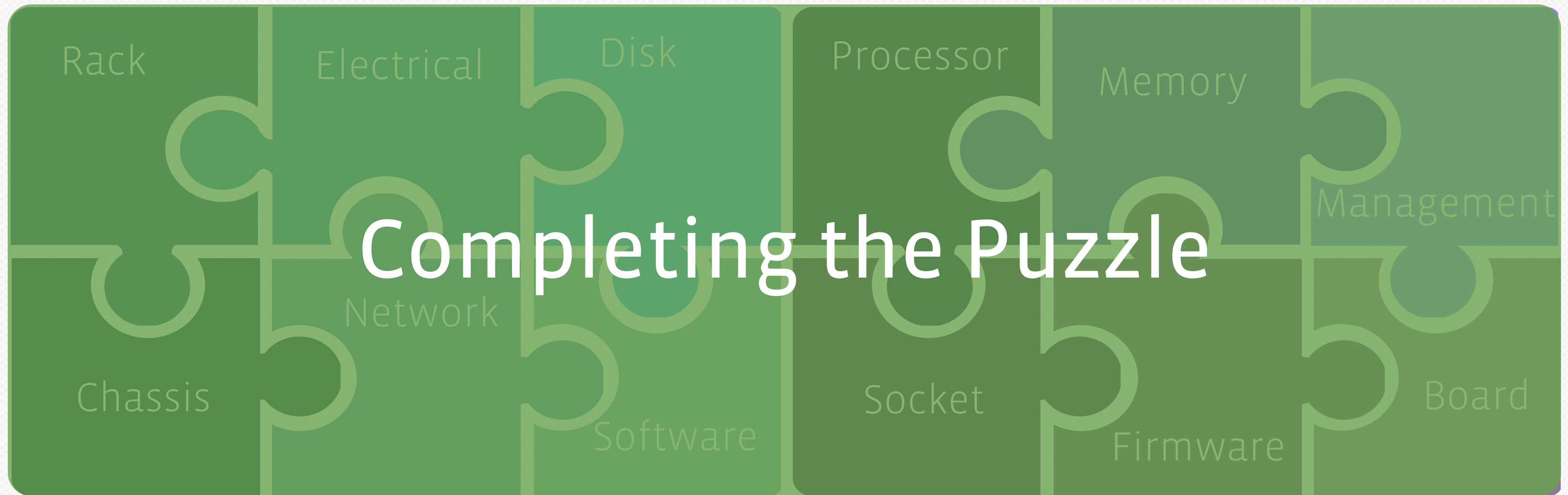
OnMetal Broke Stuff



MOVING FORWARD

Pushing the Boundaries Further.

Open is a Work in Progress



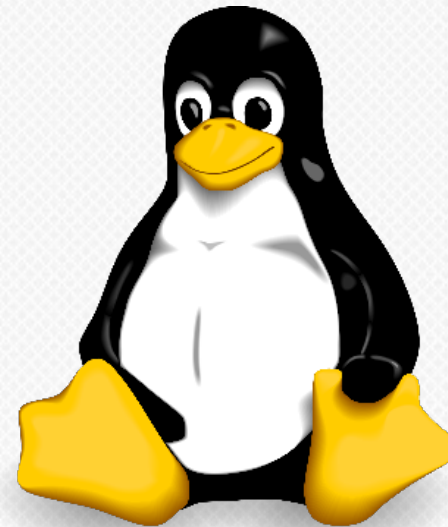
Disaggregation, Convergence, and the 'Systems Status Quo'



Pushing the Boundaries



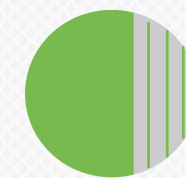
Fully open



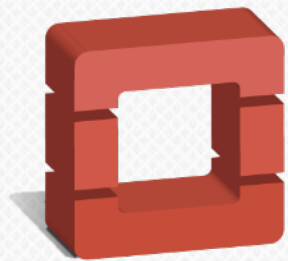
Fully open
(some exceptions on drivers)



Increasingly open
Freedom to gain more
ground.



OPENSTACK



Orchestration

Identity

Compute/Network/
Storage Fabric

LINUX



Applications

Kernel

Drivers

OPEN COMPUTE



Mechanical

Electrical

Firmware

Protocols

Interconnects

Memory/CPU

OPENPOWER



[illegible]

Possibilities



Consumers



Licensors



Possibilities



Consumers



Licensors



Possibilities



Consumers



Licensors

Firmware
Platforms
Protocols

Possibilities



Consumers



Open Licensors

Possibilities



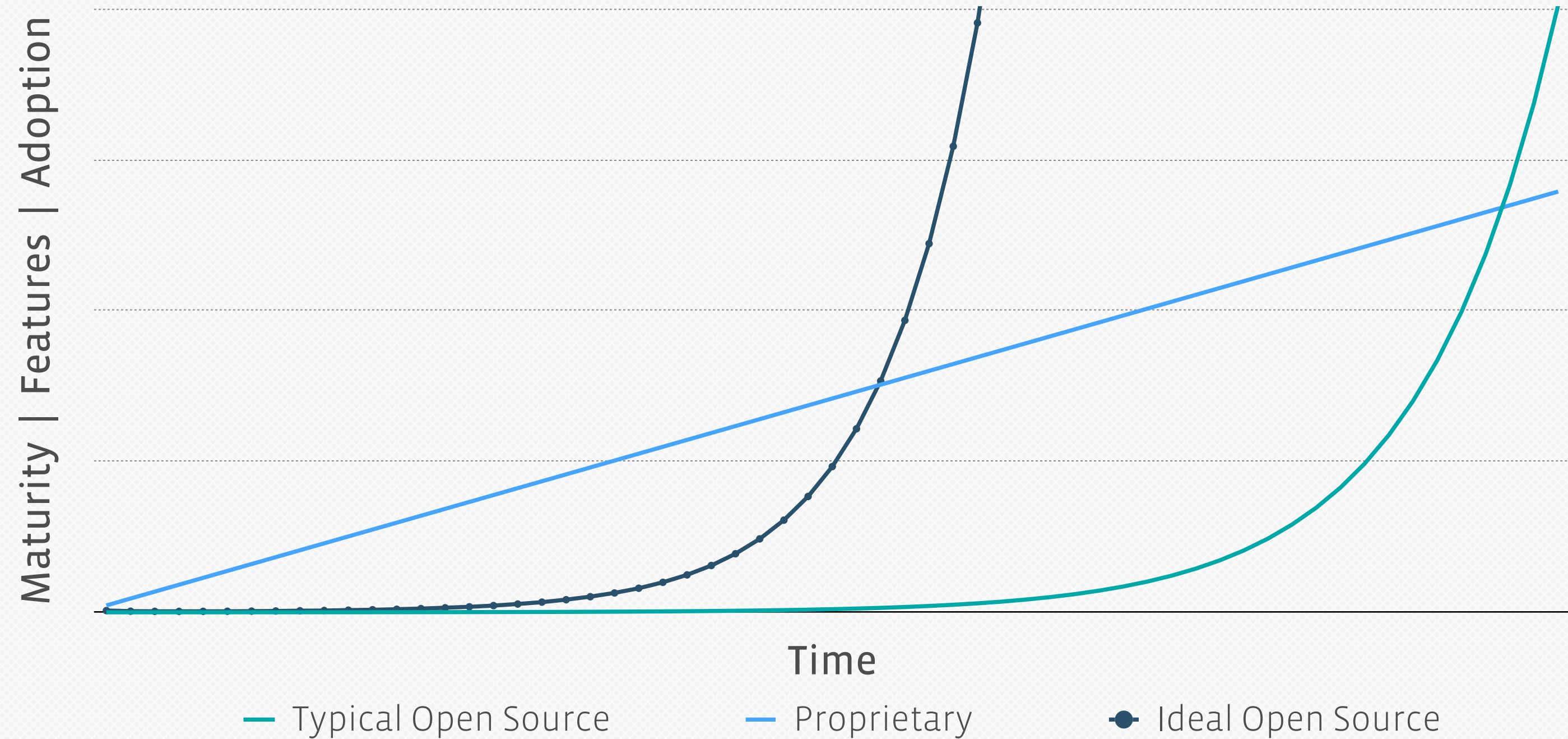
“By pledging just one or two dollars, you are helping us in our fervent quest of not having to do stuff.”

4 POINT PLAN:

1. Start Up
2. Cash In
3. Sell Out
4. Bro Down

Not About Mooching

We Can Innovate Faster



Value Propositions are Everywhere



Public Cloud

Performance compute, databases, and storage on-demand. All built on OpenStack®



Managed Hosting

Customized hardware to help you meet your performance, security, and compliance needs.



Private Cloud

Your own secure, scalable OpenStack cloud, in your data center or ours.

Thousands of Applications

RACKSPACE CLOUD SERVERS™
POWERED BY OPENSTACK

RACKSPACE CLOUD STORAGE
POWERED BY OPENSTACK

RACKSPACE CLOUD FILES™
POWERED BY OPENSTACK

RACKSPACE CLOUD BACKUP

RACKSPACE CLOUD DATABASES
POWERED BY OPENSTACK

RACKSPACE CLOUD BIG DATA PLATFORM

RACKSPACE CLOUD LOAD BALANCERS

RACKSPACE CLOUD DNS

RACKSPACE CLOUD NETWORKS
POWERED BY OPENSTACK

RACKSPACE CLOUD QUEUES

RACKSPACE CLOUD MONITORING

+ More

redis

CITRIX®

mongoDB

hadoop

Linux

Java

NGINX

Microsoft

MEMCACHED

openstack™
CLOUD SOFTWARE

APACHE
HTTP SERVER

FreeBSD®

vmware®

python™

ORACLE®

MySQL™

node.js™

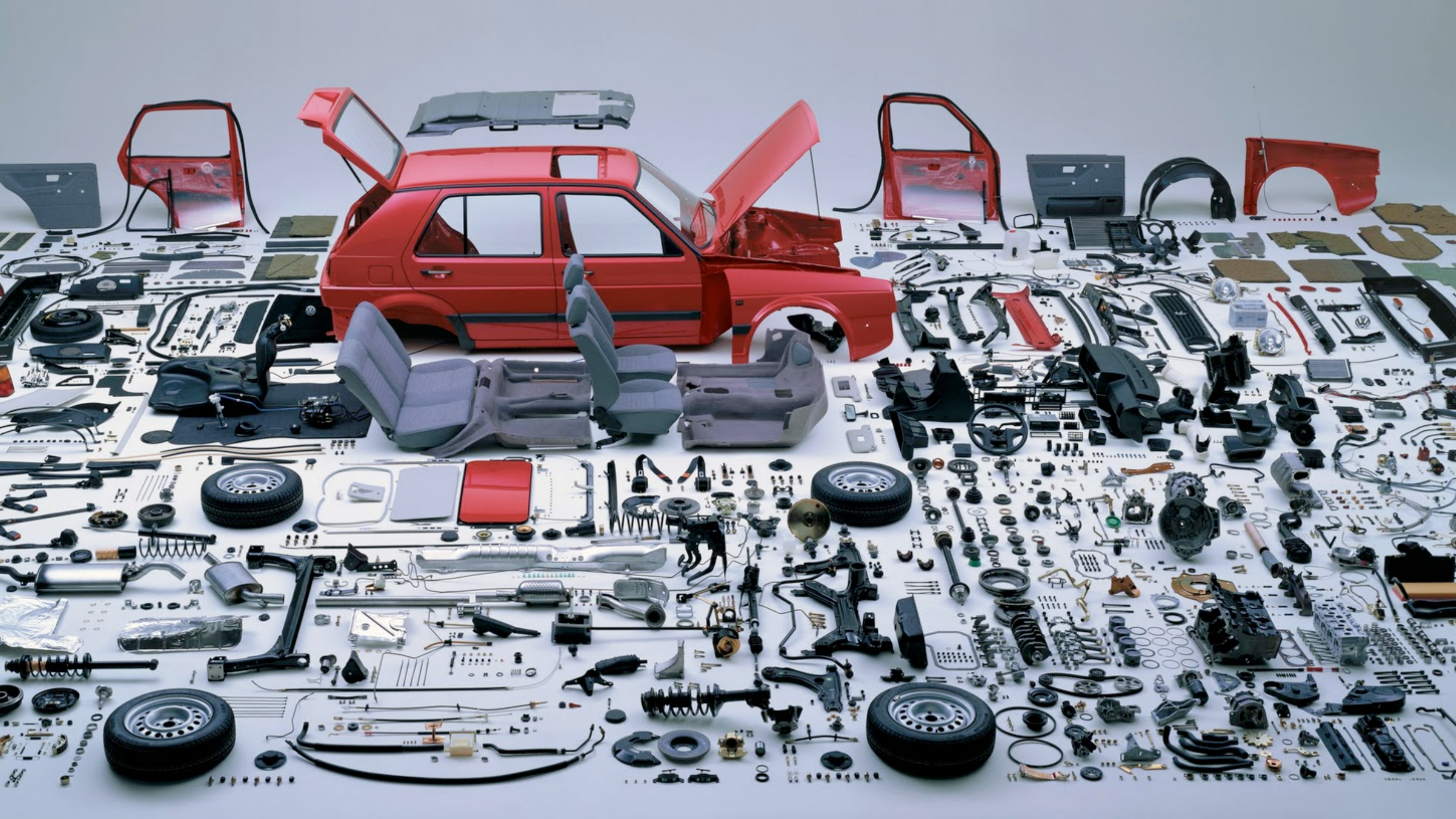
Microsoft SQL Server™





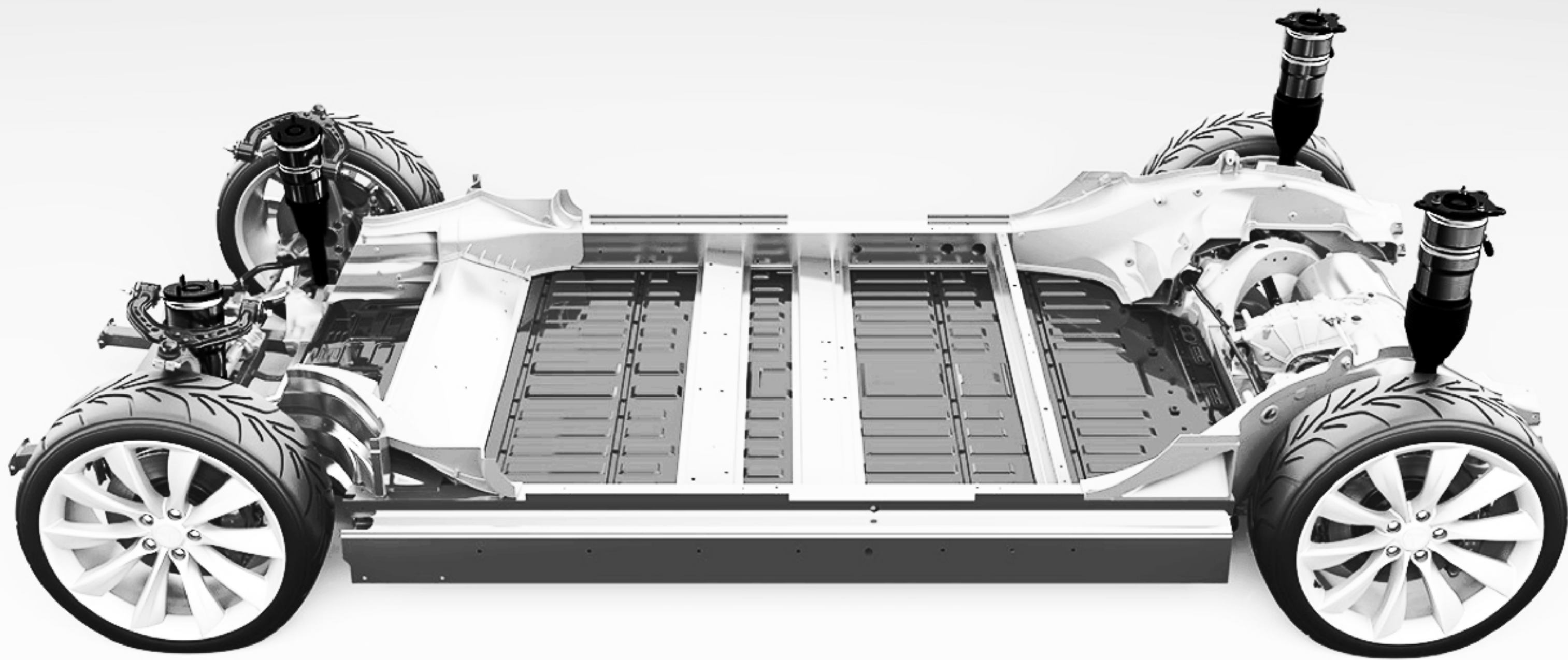
MAKING THE CHANGE

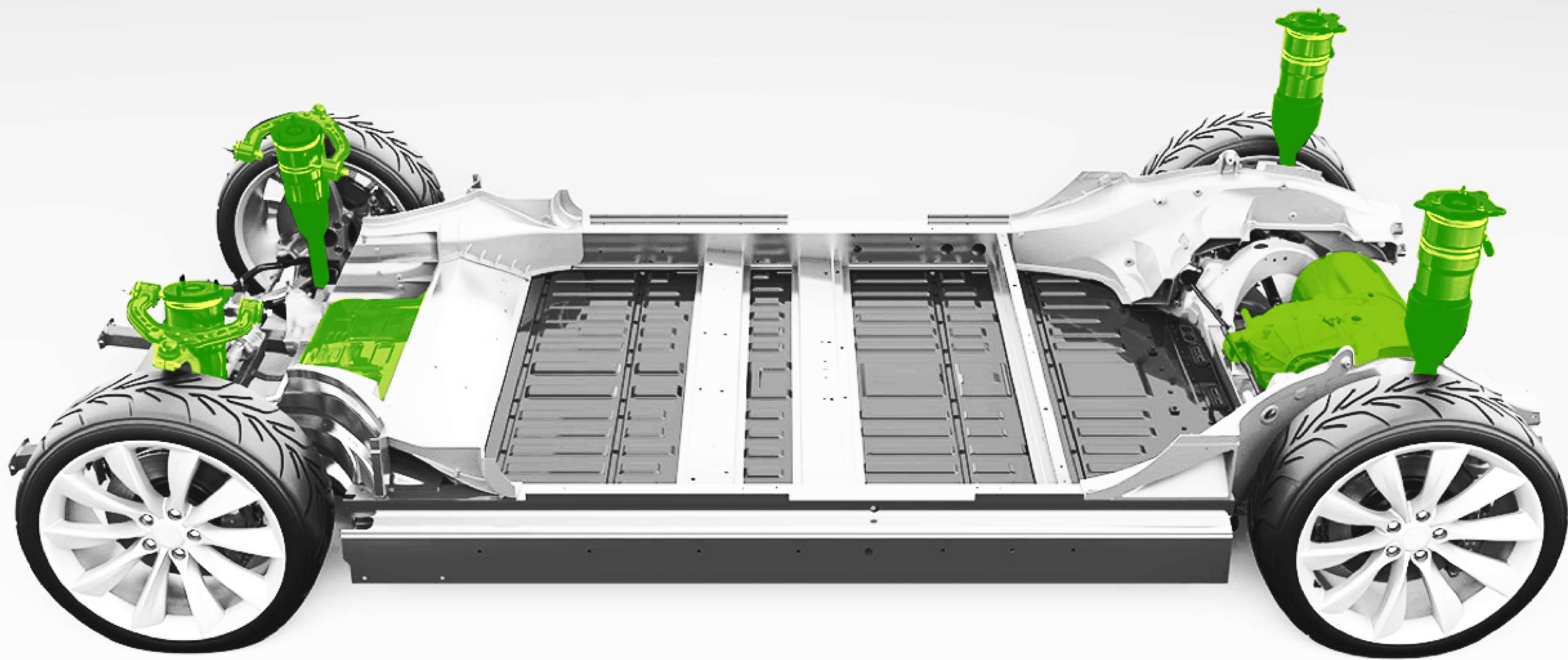
Re-engineering. Preserving & Enhancing the Experience.

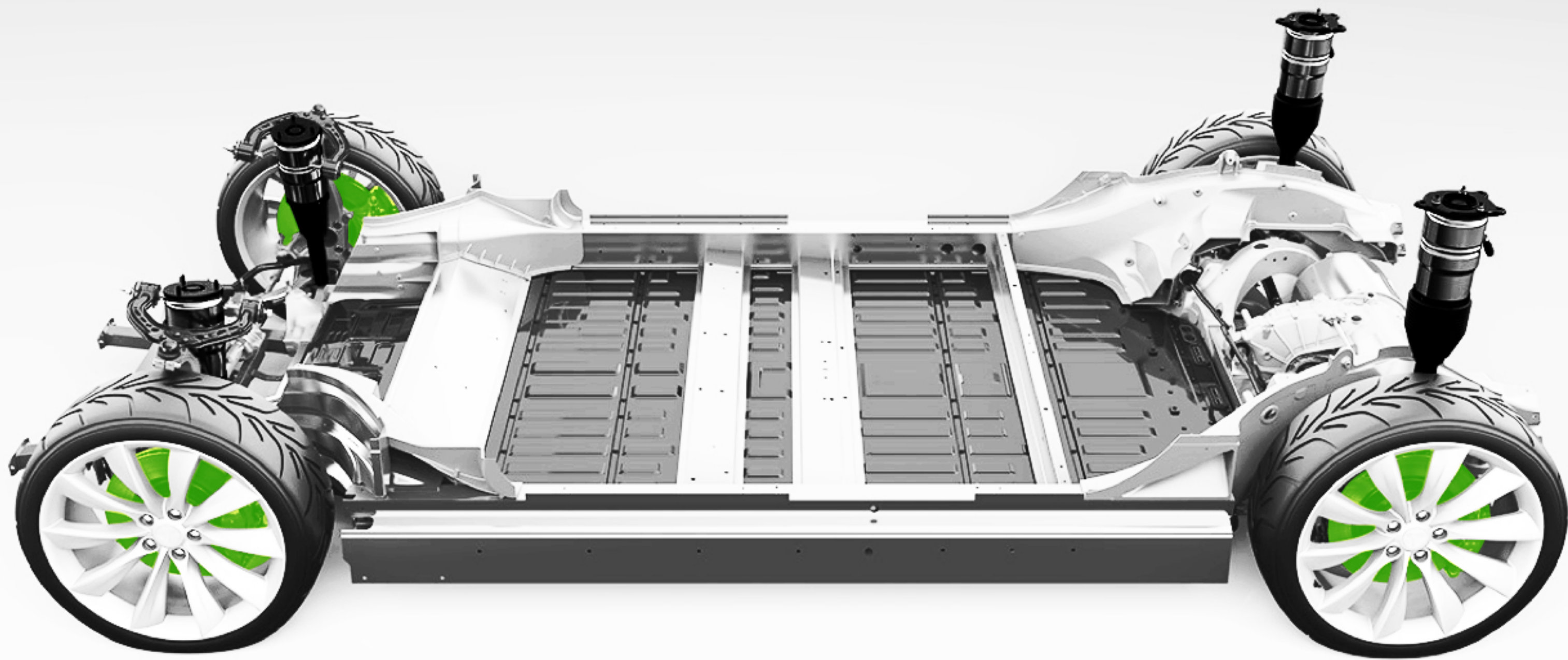


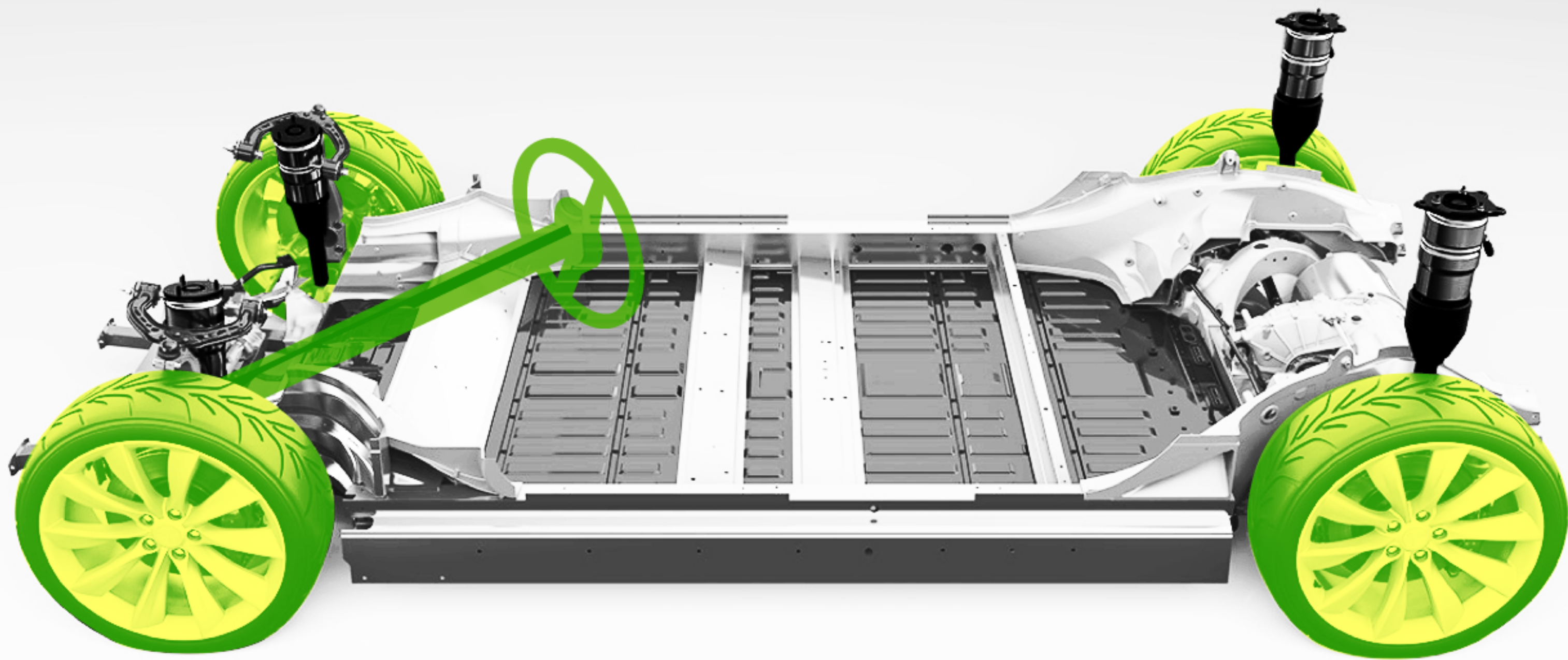


What's Different?













OUR PARTNERS

SAMSUNG



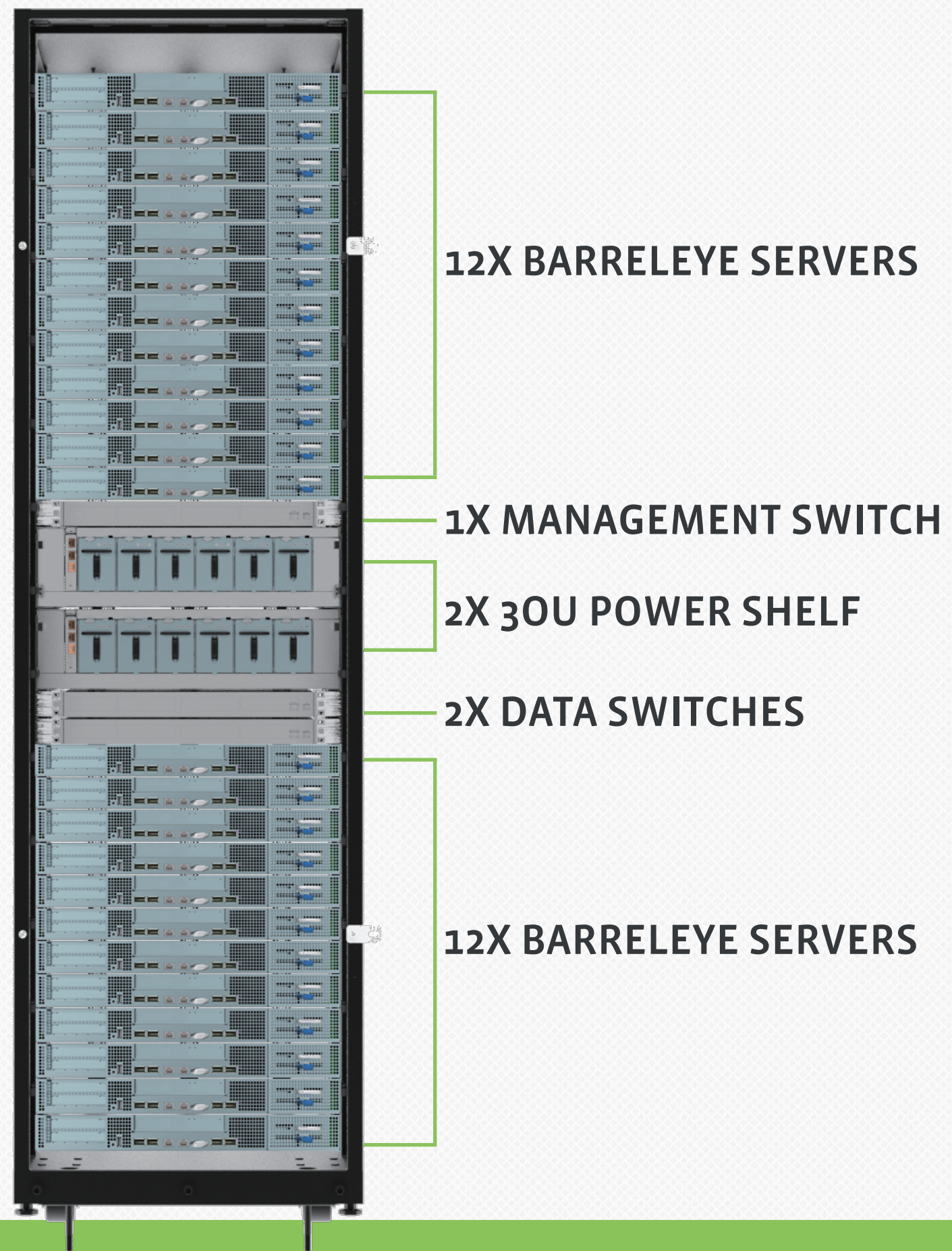
AVAGO
TECHNOLOGIES





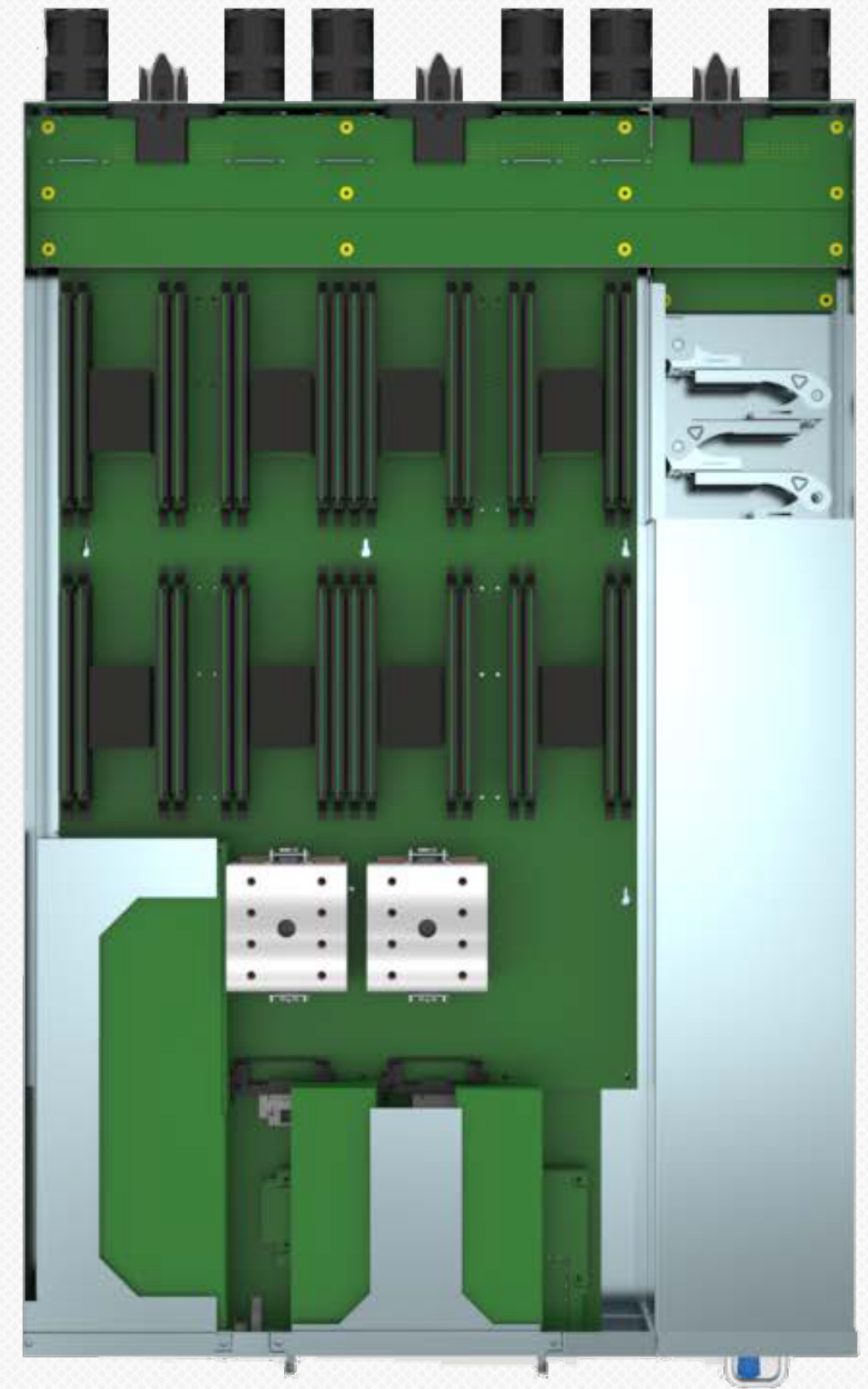
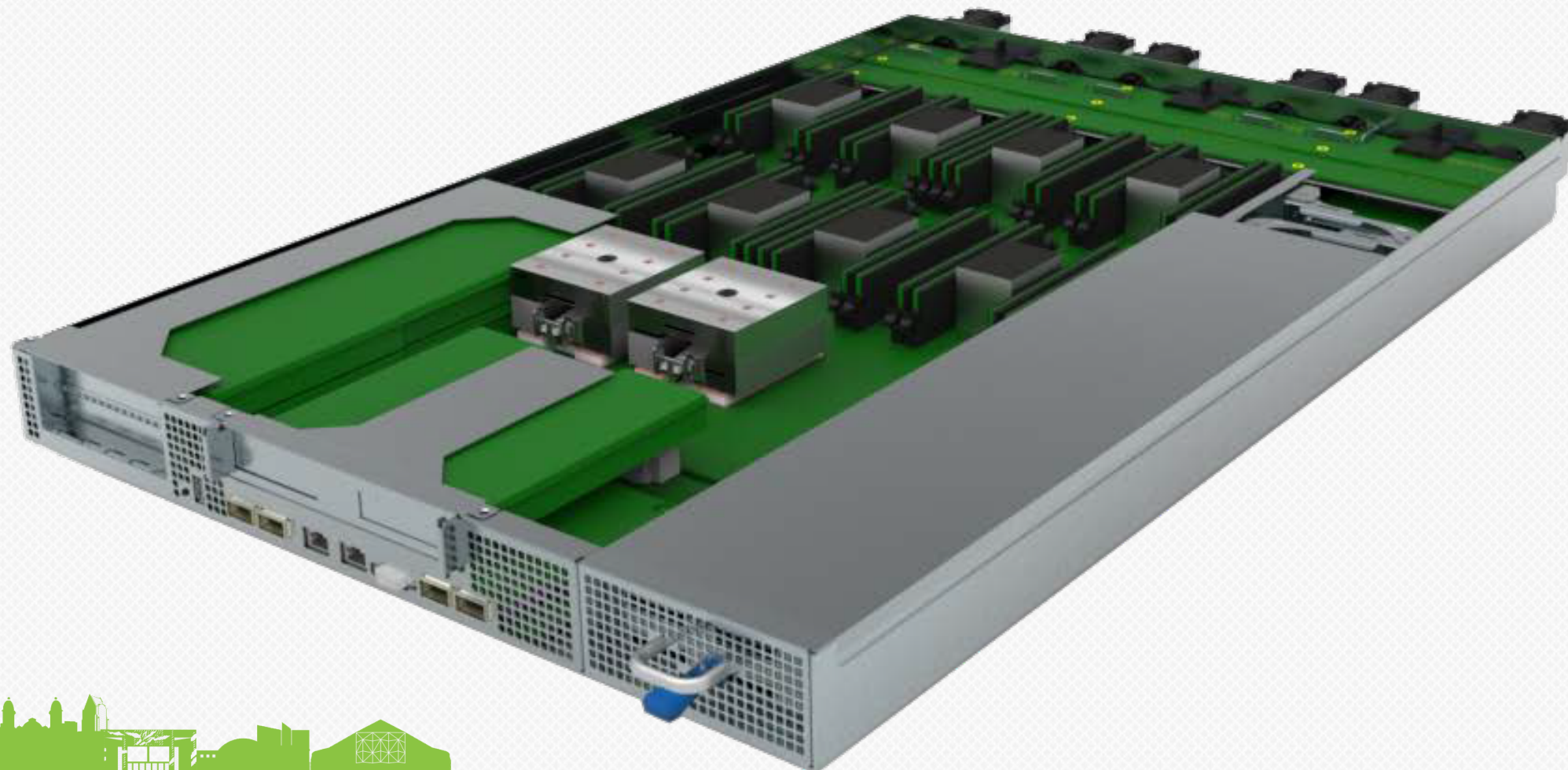
OUR PLAN TO CONTRIBUTE

Barreleye Rack

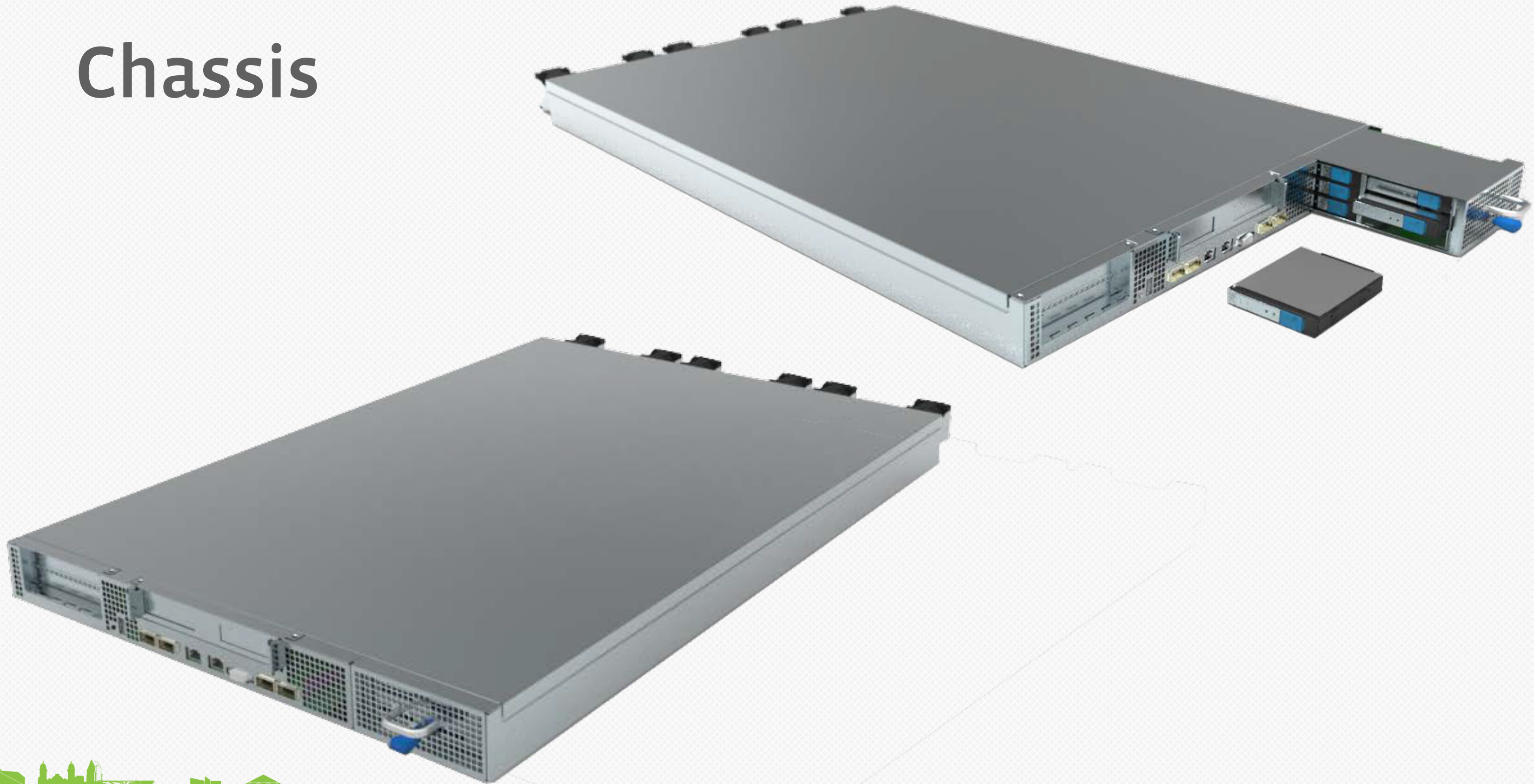


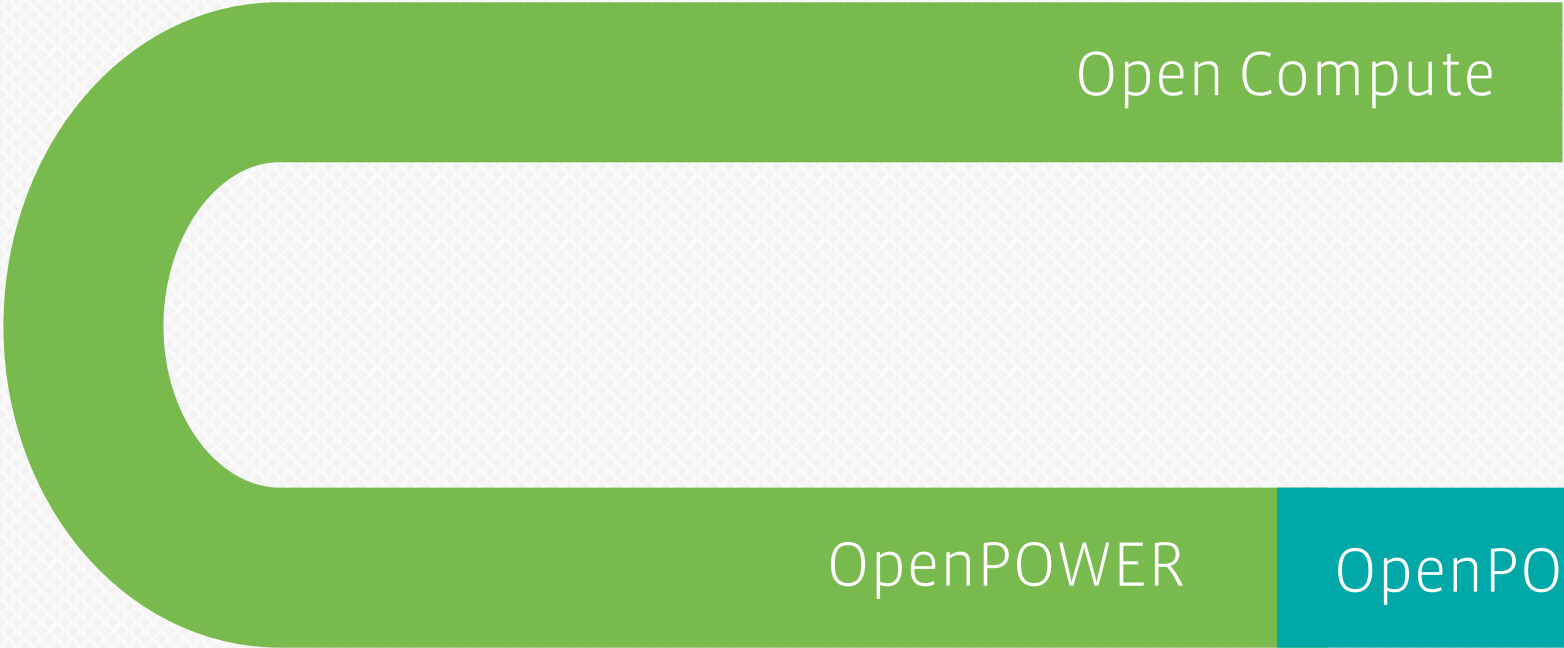
Barreleye Specs

- 2 SOCKETS
- 128 – 192 HW THREADS
- 32 DIMM SLOTS
- 15X2.5" HOT SWAP DRIVES
- 2X OCP MEZ
- 2X HHHL X8 PCI-E
- 1X FHFL X16 PCI-E
- HOT SWAP FAN
- MODULAR IO CAGE



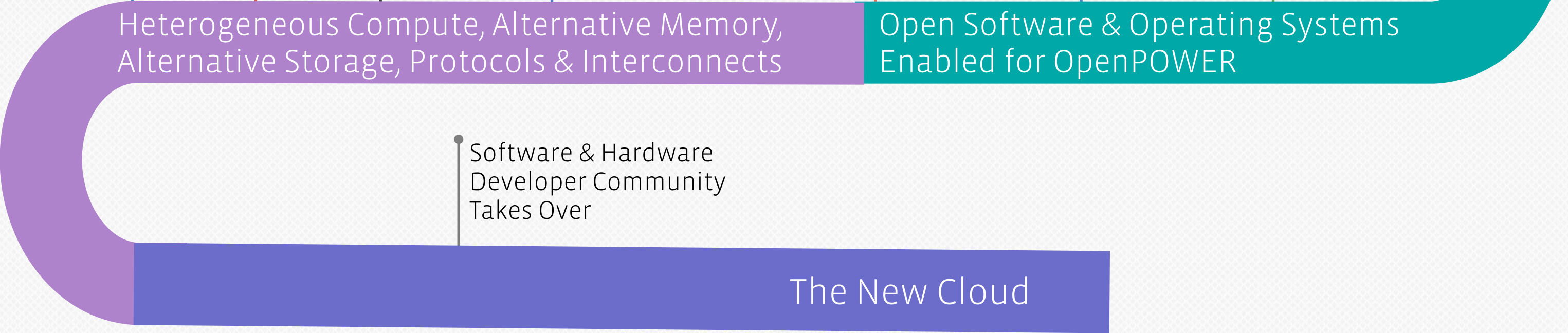
Chassis





Rackspace & Partners

- Open Storage
- Open Memory
- Open Buses & Protocols
- Open Coherent Processing (CPU / GPU / FPGA / ASIC)
- Cloud Orchestration
- Firmware (BMC / BIOS)
- Linux & Hypervisors





**Let's change
the world,
together.**

