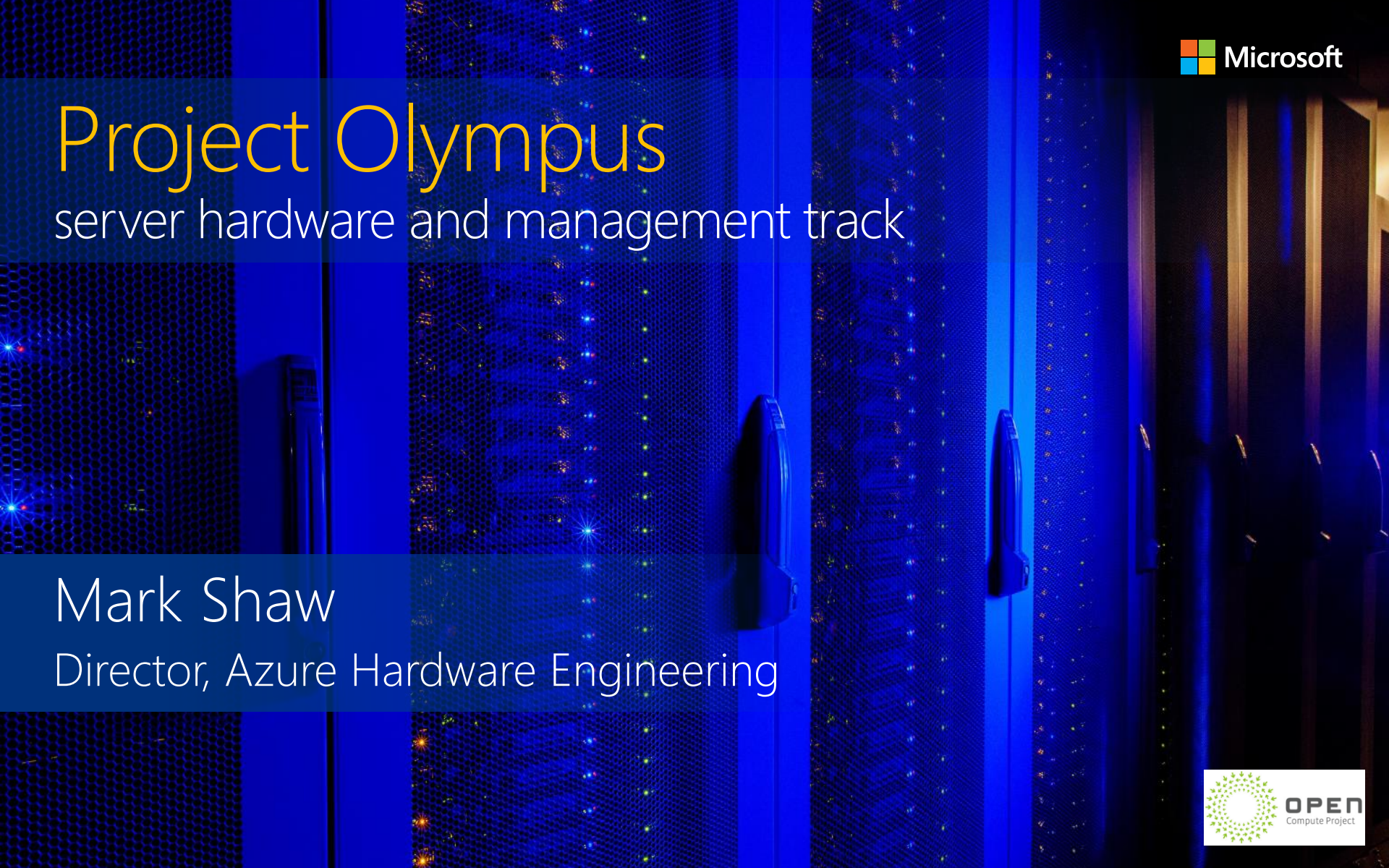


Microsoft

Project Olympus

server hardware and management track

Mark Shaw

Director, Azure Hardware Engineering

OPEN Compute Project

Announcing *Project Olympus*

Next-gen Hardware

Open sourcing leading edge Hyperscale cloud hardware *currently under development* at Microsoft

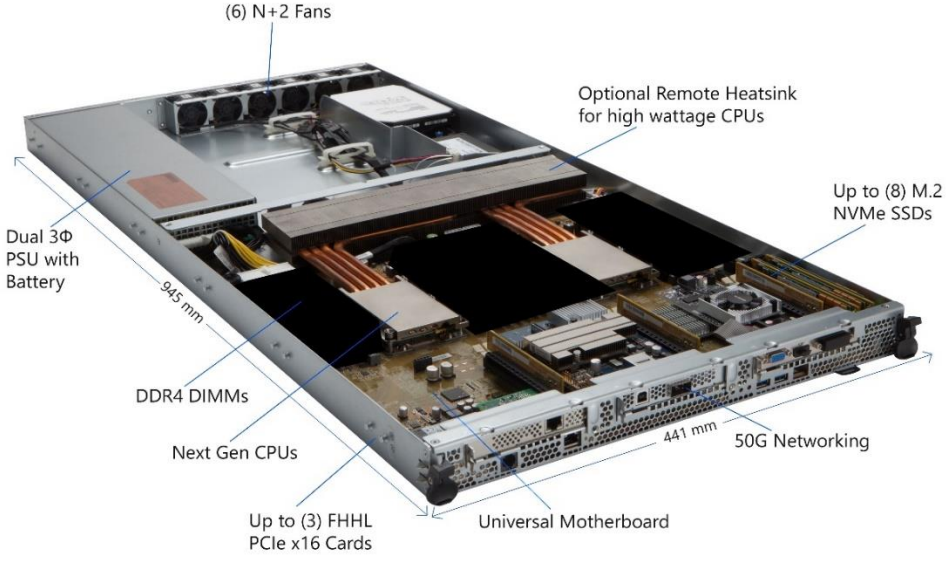
Development Model

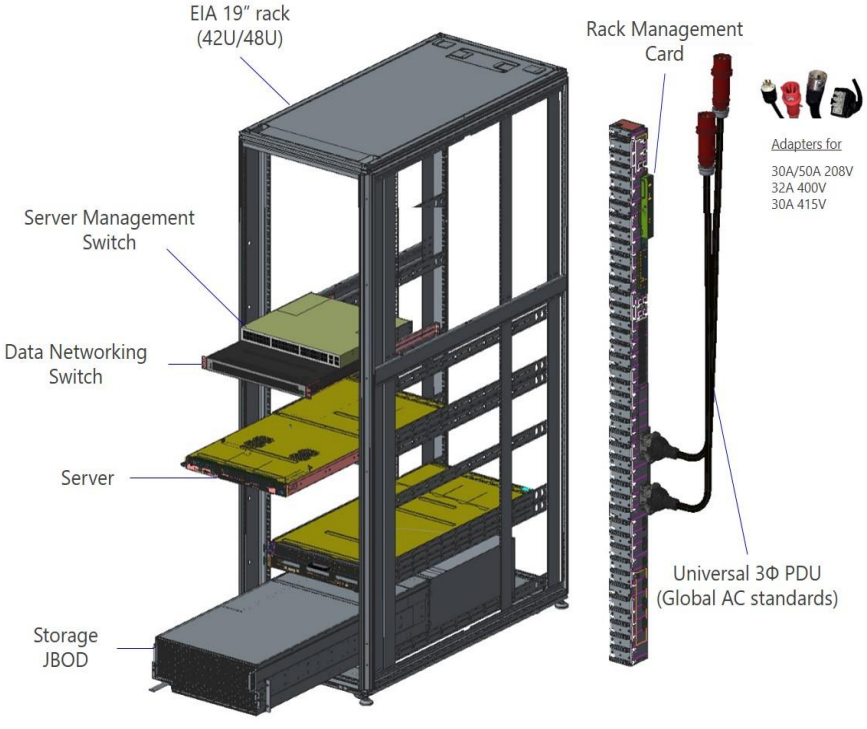
New collaboration model with OCP community – *co-develop open hardware at cloud speed*

Industry Ecosystem

Bootstrap a vibrant ecosystem in OCP for the next generation of datacenter hardware

Project Olympus design





Modular building blocks

High Power Efficiency

Cost Optimized

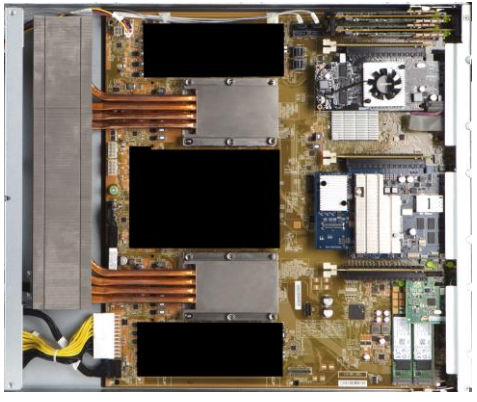
Global Datacenter Standards

Solution delivery agility

Microsoft

Project Olympus universal components

Universal Motherboard



- Optimized for maximum CPU and I/O performance
- Standards based management (IPMI or Redfish)
- Multi-rack compatibility (EIA 19”, OCP 21”, Other 19”/21”)

Universal PDU (rack power distribution)

- Dual 3Φ AC inputs for power redundancy
- Supports all global datacenter electrical standards
- Out-of-Band server and rack management

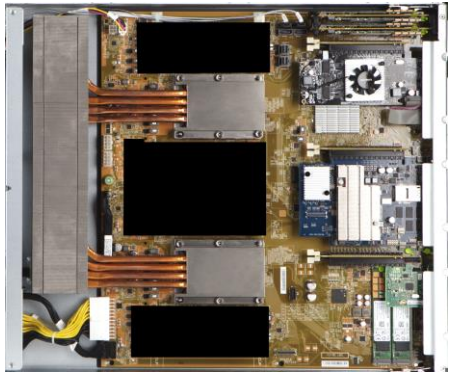
Global Adapters

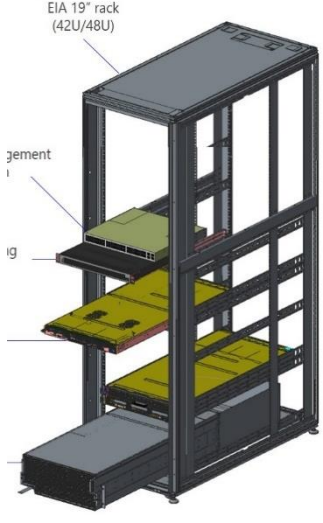
30A/50A 208V

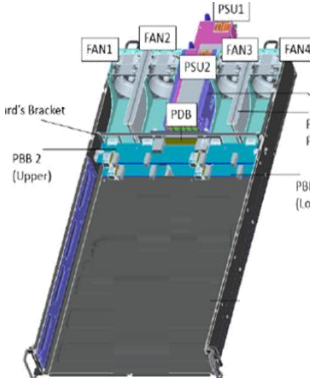
32A 400V

30A 415V

Universal Motherboard potential adoption







Universal Motherboard

Project Olympus Rack

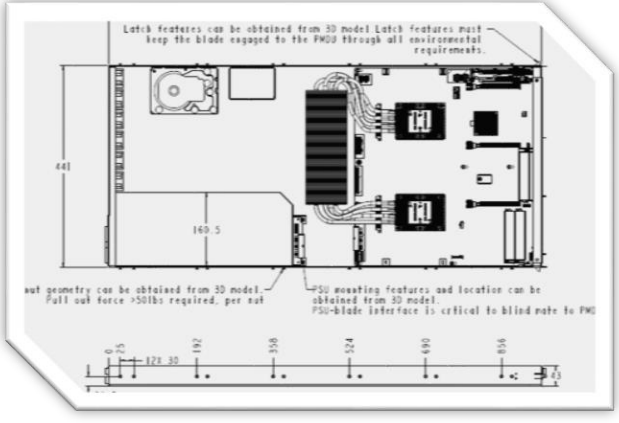
Rack & Stack 19″

Other 19″ and 21″ Racks

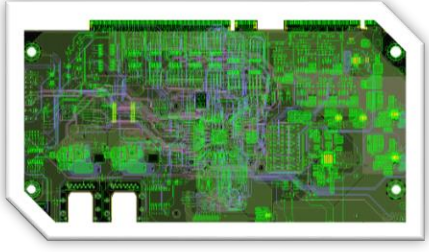
Project Olympus OCP contribution

OPEN Compute Project

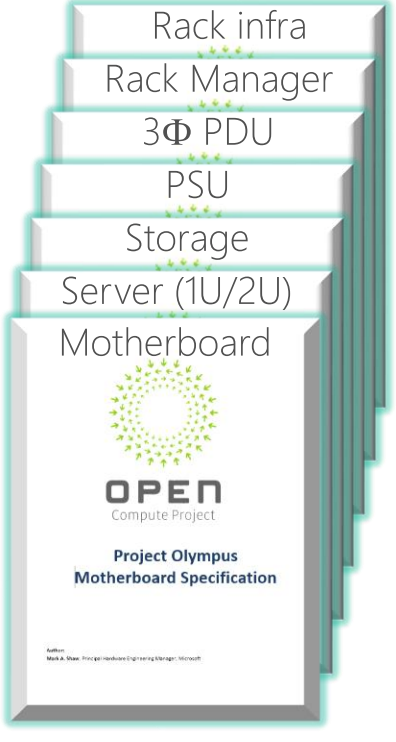
Mechanical CAD



Schematics & Board Files



Specifications



Source Code

```
///  Gets Fan speed in RPM
/// <param name="fanId">target fan Id</param>
/// <returns>Fan speed in RPM</returns>
internal FanSpeedResponse GetFanSpeed(byte fanId)
```

Available on OCP Github page

https://github.com/opencomputeproject/Project_Olympus

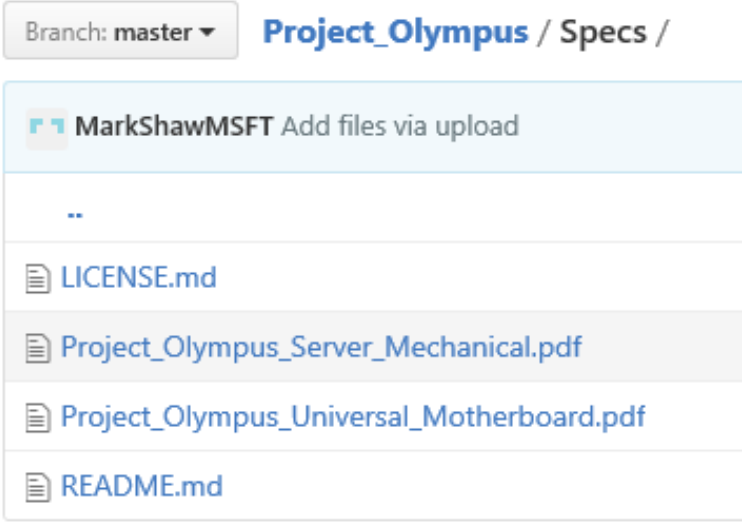
Microsoft

Project Olympus on github

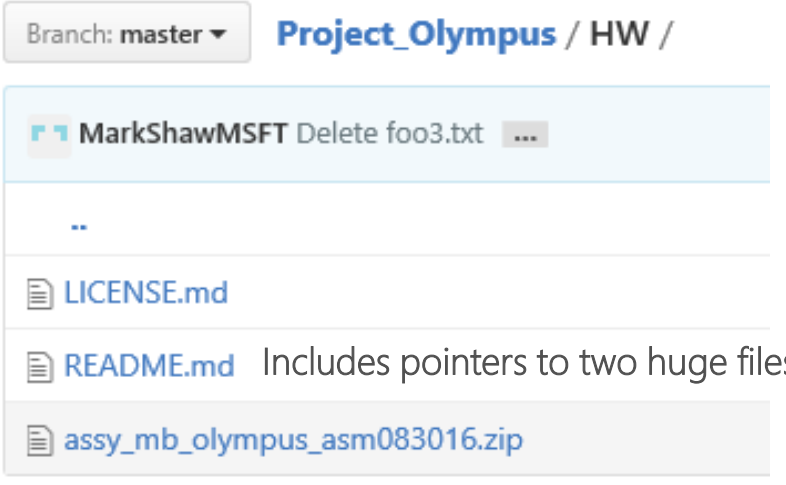
opencomputeproject / Project_Olympus

https://github.com/opencomputeproject/Project_Olympus

Specifications



Mech & Elec

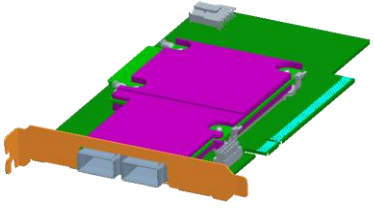


Includes pointers to two huge files

OCP Support

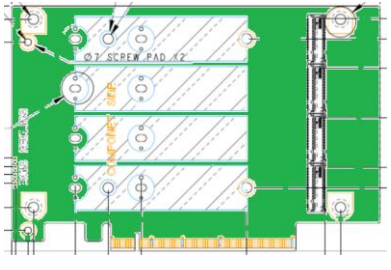
Changes driven by OCP Feedback from March 2016 Summit

- Management support for VGA and NCSI via BOM population changes
  - ASPEED BMC AST2400 with PCIe x1
  - VGA and NCSI cable connectors
  - Support verified and consistent with Facebook servers
- Creation of NIC Mezz Adapter with NCSI cable header



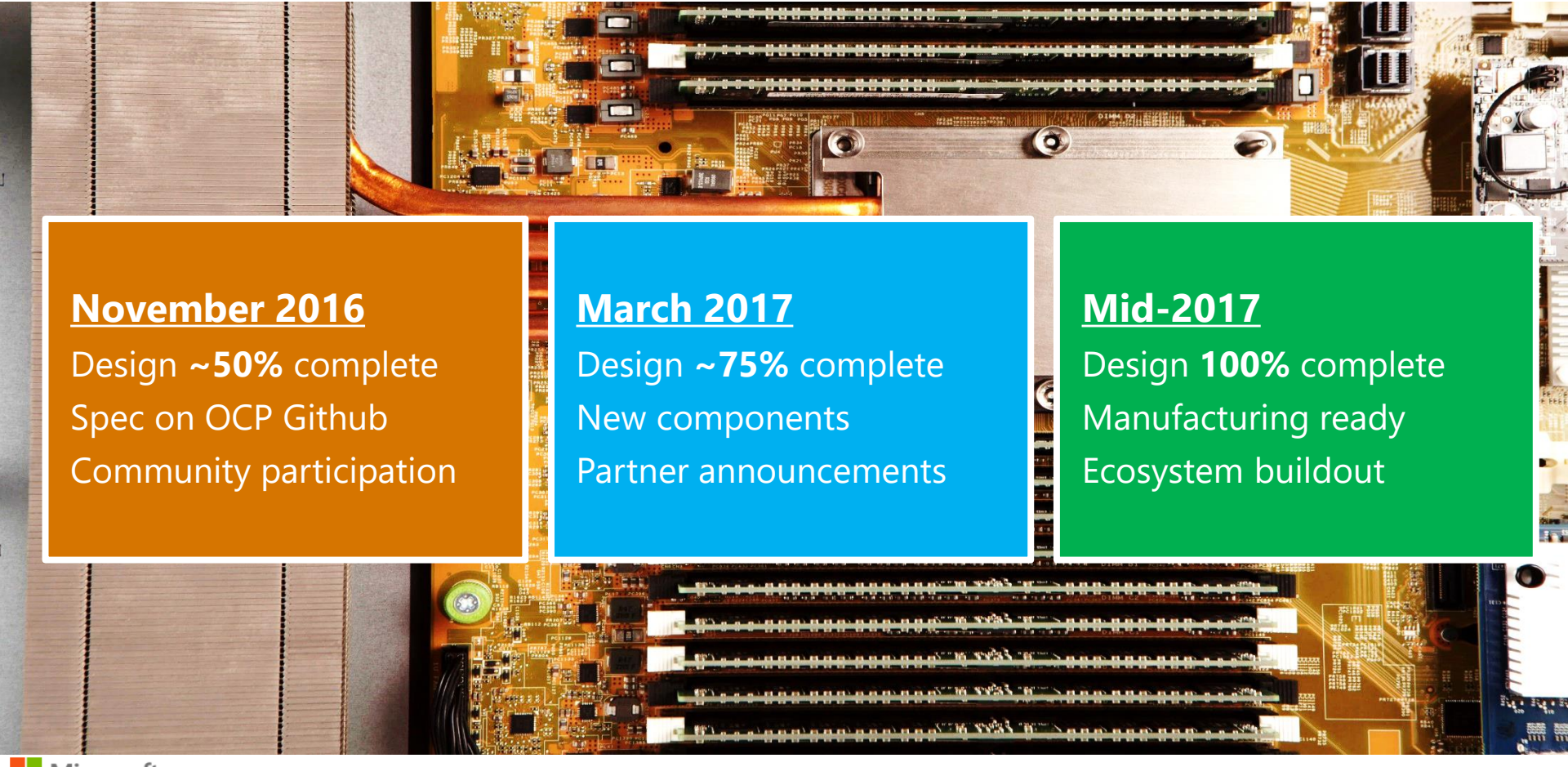
OCP Collaboration – Quad M.2 Carrier

- Supports 4 M.2s (per carrier)
- Enables configuration with up to 16 M.2s in 1U
  - 16TB NVMe flash today, soon 32TB or more



https://github.com/opencomputeproject/Project_Olympus

Project Olympus timeline



November 2016

Design **~50%** complete

Spec on OCP Github

Community participation

March 2017

Design **~75%** complete

New components

Partner announcements

Mid-2017

Design **100%** complete

Manufacturing ready

Ecosystem buildout

Learn More

Visit Microsoft booth for live demos

Project Olympus hardware
SONiC networking

Project Olympus Technical Overview

Brandon Rubenstein

Wed 14:45

Project Olympus Specification Deep-Dive

Mark A. Shaw

Wed 16:00