OPEN Compute Summit

Engineering Workshop

October 30-31, 2014

Paris

Open Rack Project Session

Steve Mills
Facebook
Open Rack Project Co-lead

Open Rack Project

Schedule

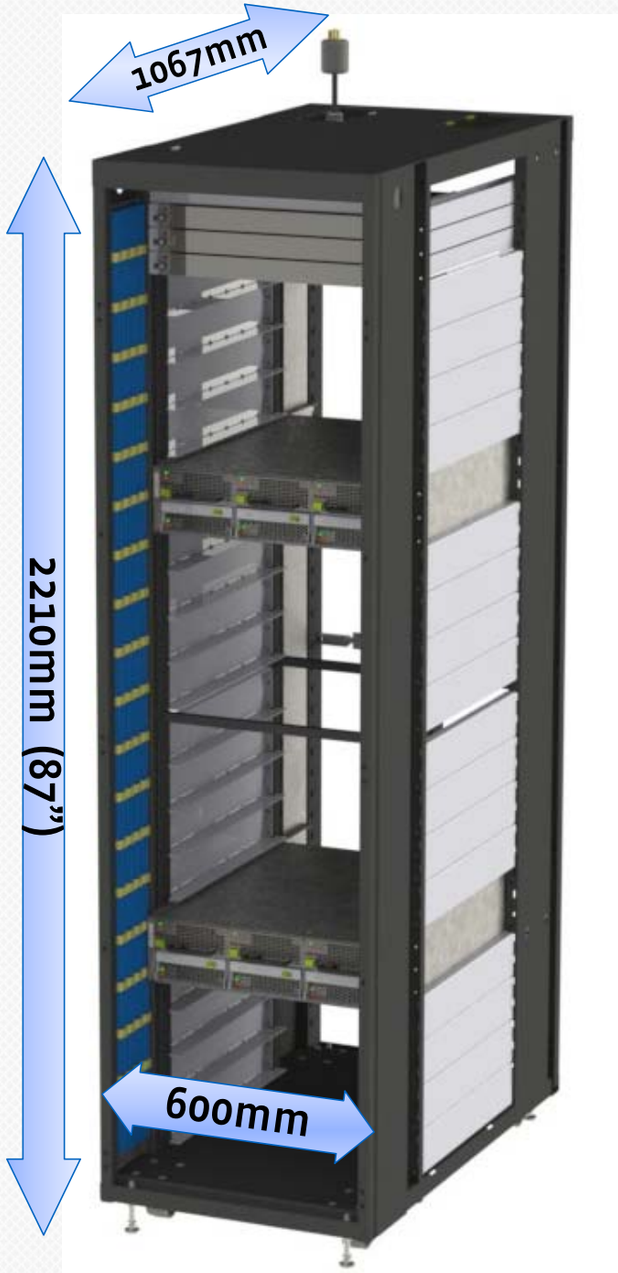
- Session1: 11:00 – 12:00
  - Overview of Facebook Open Rack V2
    - Power Architecture — Pierluigi Sarti
    - Mechanical Architecture — Steve Mills
- Session2: 2:00 – 3:30
  - Rittal Open Rack V2 Update — Andy Gill
  - Updates to Open Rack Standard V1.2 — Steve Mills

Overview of Facebook Open Rack V2

Steve Mills
Open Rack Project Co-lead
Facebook

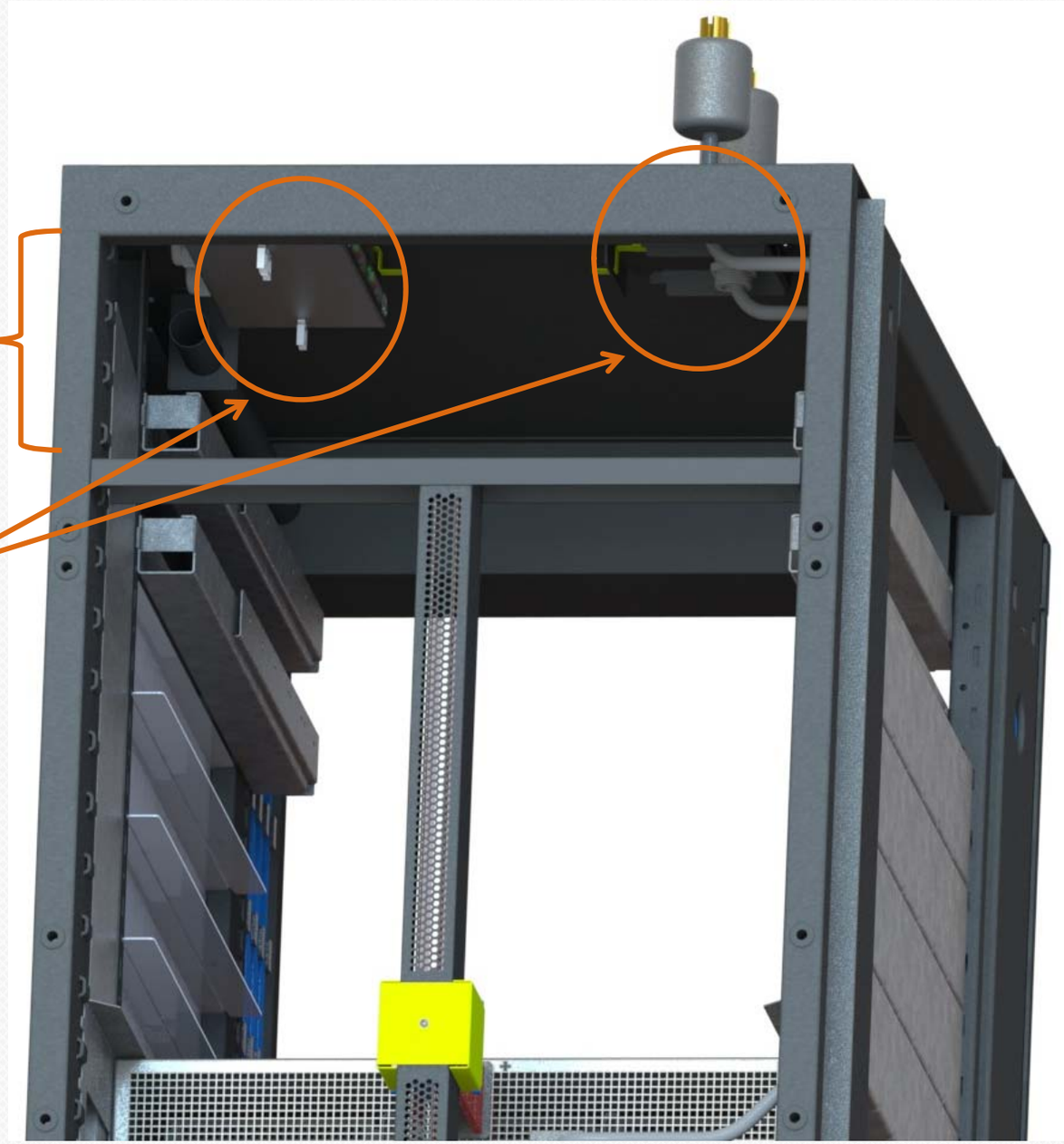
Facebook Open Rack V2

- Complies with Open Rack Standard V1.1
- Backwards compatible with all Open Rack V1 IT Gear
- Increased Max IT Gear mass from 950kg → 1400kg)
- Increased height from 2100 (82.6”) to 2210mm (87”)



Rear View

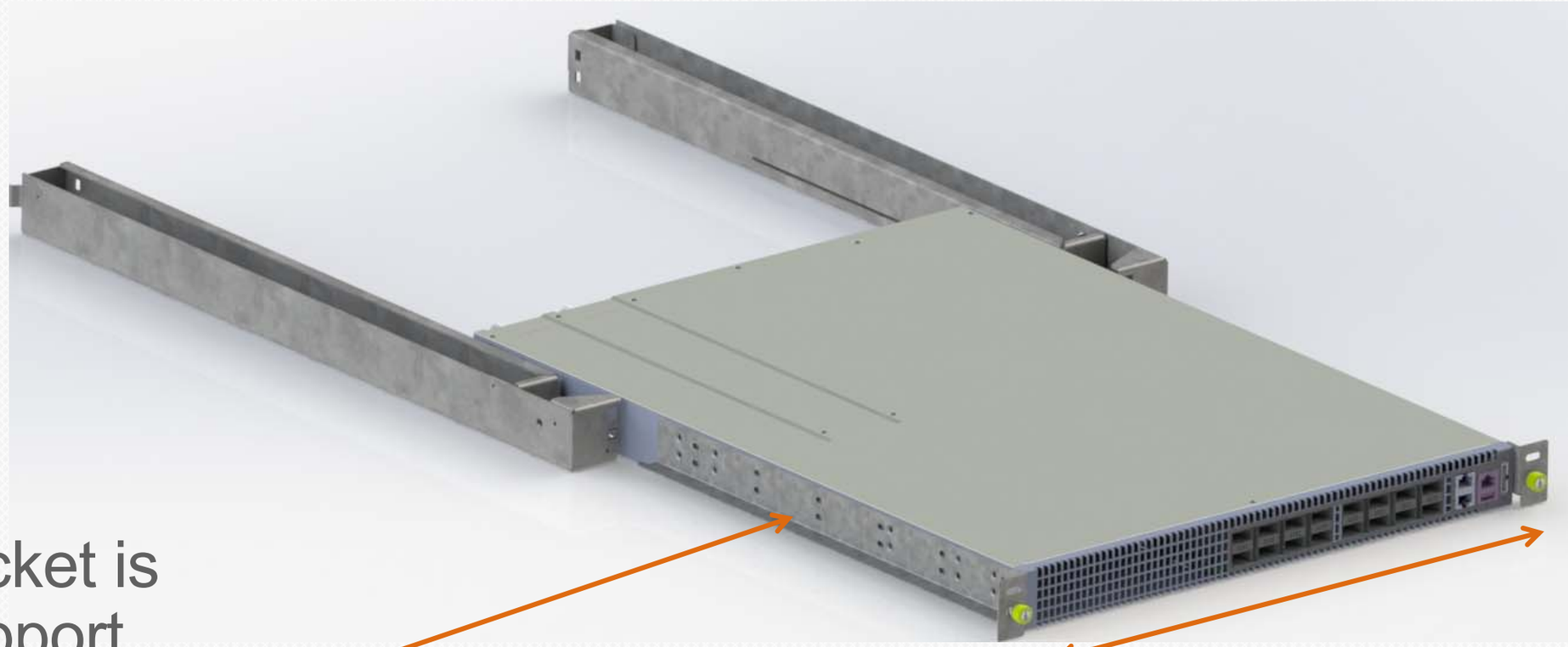
- Switch Service area is larger and now supports 3 switches
- PDUs are located in the back under the canopy
- Capable of supporting 3 busbars but FB plans to populate only 1 at production



Rack Monitor Appliance

- Rack monitoring server moved from top of cabinet to area under canopy in front

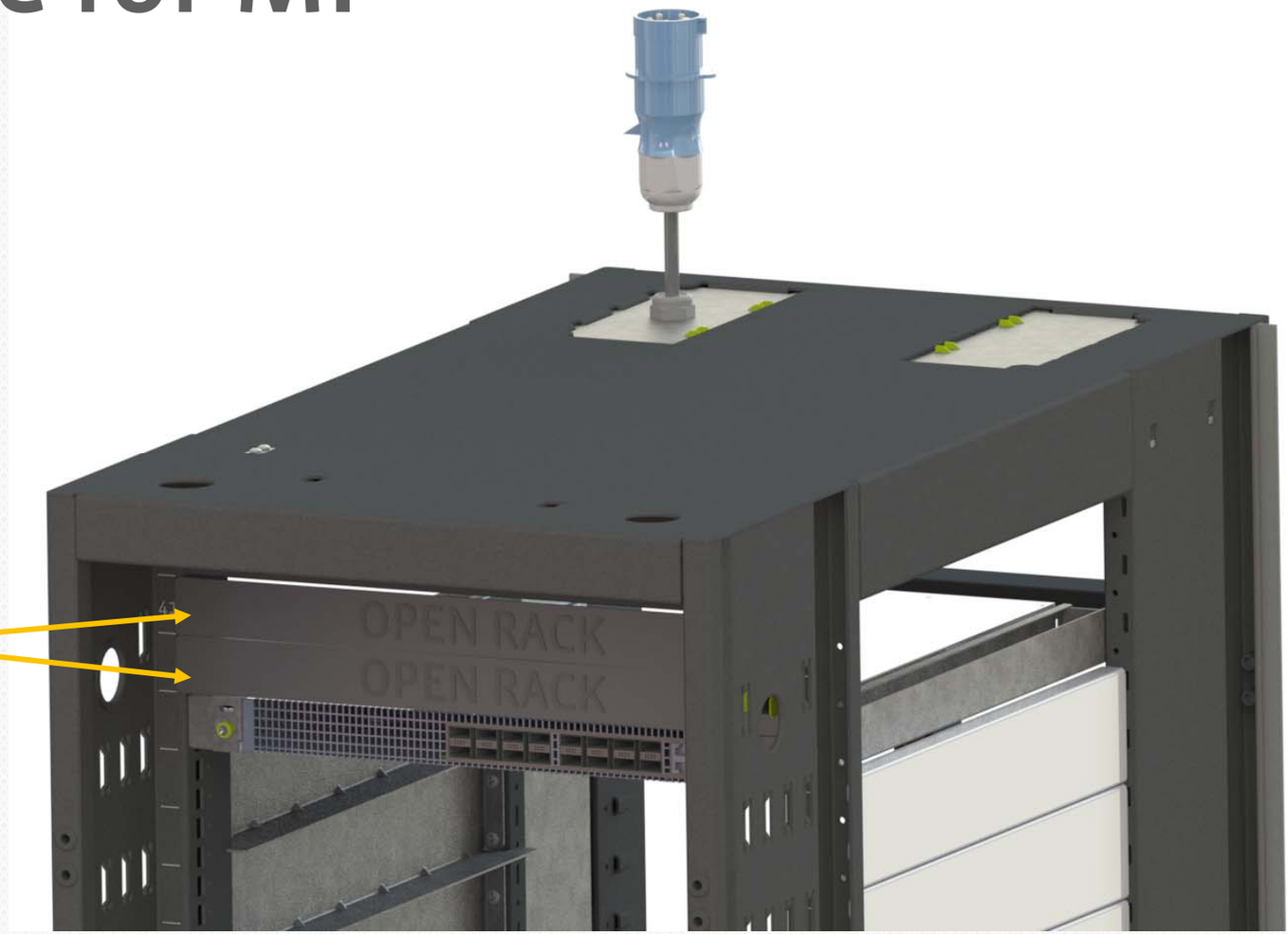
Adapter for 19” EIA switches



- Adapter bracket is longer to support switches with greater depth and weight.

Brackets adjusts horizontally +/-2 mm for different chassis widths.

10U blank available for MP



Facebook Cubby Rack Sub-chassis

Steve Mills
Open Rack Project Co-lead
Facebook

FB Cubby Project

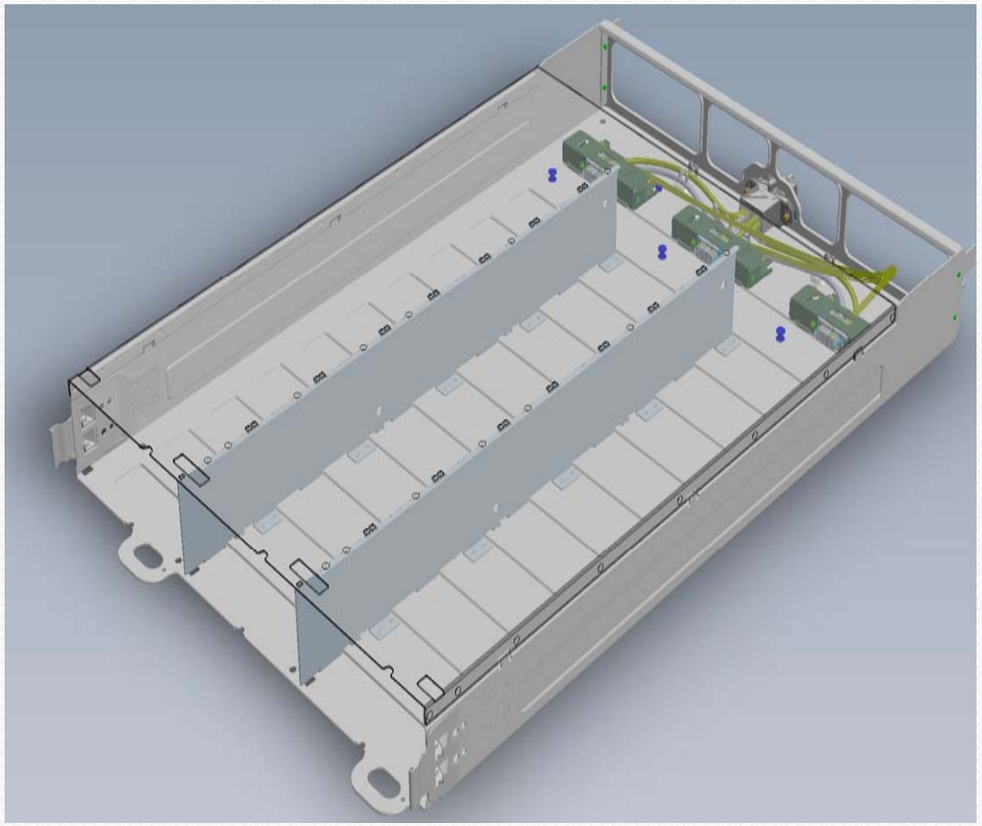
1 Power Zone

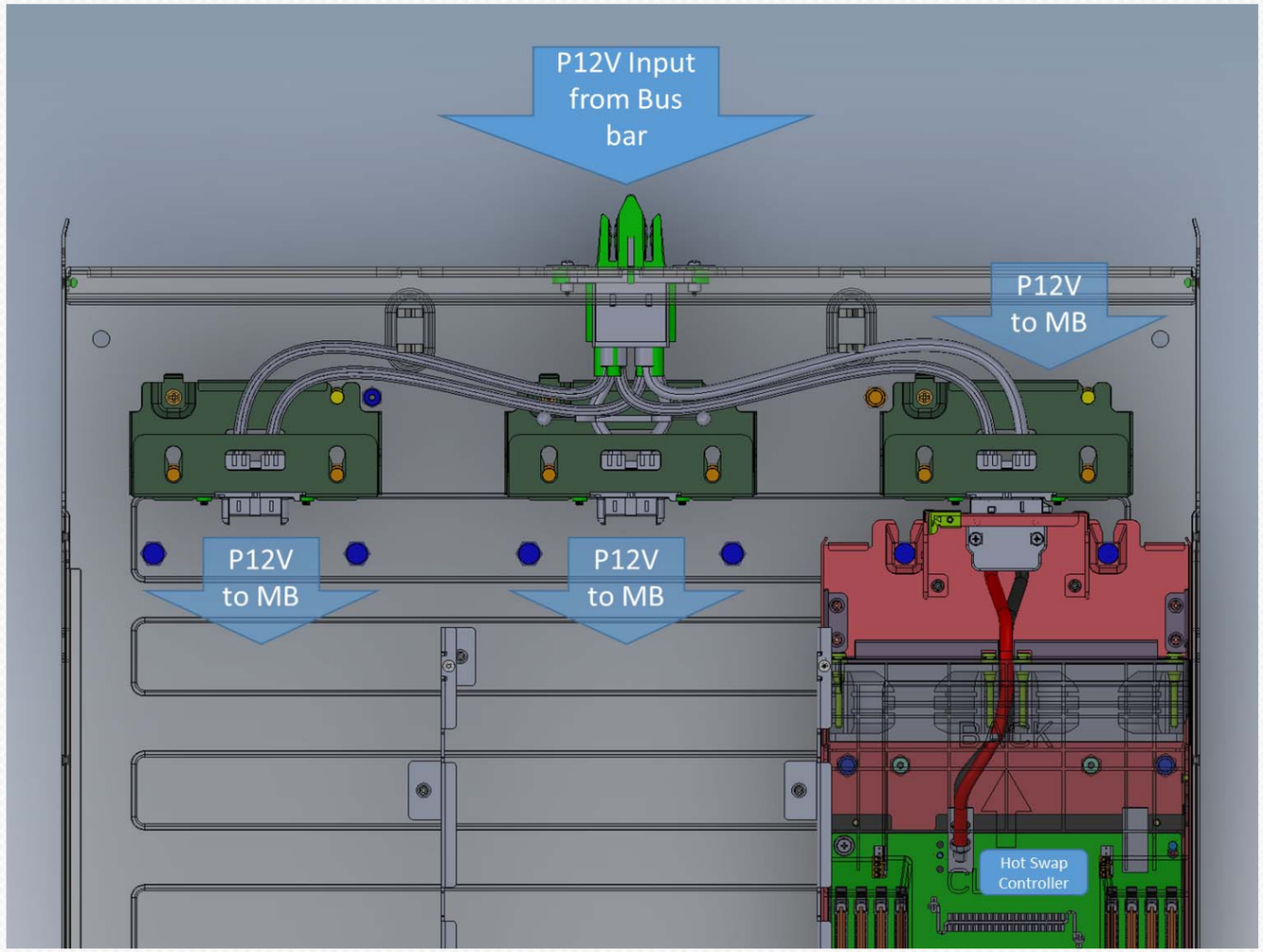
12 IT Slots

12 IT Slots

- Splits each power zone into 24 slots for IT gear
- Each IT slot is 2OU tall x 17.5cm x 68cm and can support 25kg of gear

Splits Power from 12VDC to each Slot





Cubby with 1 slot populated

- Specification will be included in Open Rack V2 specification submission on OCP website.