January 28–29, 2014 San Jose
Open Rack Workshop

Matt Corddry
Facebook
Project Chair
Schedule

2:00  Introduction
2:10  OpenRack Standard Update
2:40  Facebook OpenRack v2 Overview
3:25  Facebook OpenRack v2 Mechanicals
3:40  Fidelity OpenRack
4:10  Break
4:25  Rittal OpenRack
4:55  Delta OpenRack
5:25  PowerOne OpenRack
5:55  Wrap Up
Open Rack Standard Update
V1.1
Standard: ADD Holes to Vertical Posts

Inside of Front Post

Inside of Rear Post

TYPICAL
ALL DIMENSIONS ARE NON-CUMULATIVE
IT GEAR SUPPORT BRACKETS REMOVED
Standard: Change hole diameter from 5.42 to 5.5

Front Post

Rear Post

\( \varnothing 5.5 \pm 0.05 \)
SIZED FOR M6
THREAD FORMING SCREW
DIN 7500 OR TAPTITE

SECTION E-E
TYPICAL
NON-CUMULATIVE

SECTION F-F
TYPICAL
NON-CUMULATIVE
Standard: Reserve PDU Volume
Standard: Control Leading Radius on Busbar
Standard: IT Support Brackets

- Conform to the shape shown in Detail C (Figure 7). If the IT Support Bracket is continuous along the entire width of the rack instead of two Support Brackets, than the 20mm bracket length in Detail C may be ignored.
- IT load changed to 700N per set
Standard: Marking for Re-use

▪ The rack SHALL be marked:
  In a permanent and legible manner with the maximum load mass (in kilograms)

▪ With the latest revision number of the standard for which the rack is compliant in either of the following formats:
  ▪ OPEN RACK STANDARD REVXX.X
  ▪ ORS REVXX.X
Standard: Marking for Re-use

- Add to section:
  - For purposes of qualification testing, the total mass used for determining the frame load rating SHALL be evenly distributed within the entirety of the equipment bay.
Facebook Open Rack V2 Overview
Facebook Open Rack V2 Mechanical
Facebook Open Rack V2

- Complies with Open Rack Standard
- Backwards compatible with all Open Rack V1 IT Gear
- Increased Max IT Gear mass from 950kg → 1250kg)
- 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

- Designed to support 3 busbars but FB plans to populate only 1 at production
Rear View

- Power Shelves can be located within any U in the rack

- Power shelf deeper to improve service

- Levelling feet are accessible with power tools to speed deployment at Data Center
Rack Monitor Inside Frame

- Rack monitoring server moved from top of cabinet to area under canopy
Open Bridge Rack
Fidelity Investments
Break Time
Rittal Open Rack Update
Delta OpenRack Update
PowerOne OpenRack Update
OPEN
Compute Summit
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<td>Proposed Changes for Open Rack Standard V1.2</td>
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Proposed Changes for OpenRack Standard V1.2
Add connection for Power Shelf to Rack Busbar

Start with Hole at Datum E and add holes to the busbar in a 25x25 array
Q&A and Hands-on with Delta, Facebook, Fidelity, PowerOne, and Rittal