THE OPEN COMPUTE RACK **EXPLAINED**

A closer look at Open Rack

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The Open Rack is contributed by Facebook to the Open Compute Project. It is designed with lowering both capital and operational expenditure in mind. The design principles are based on energy and cooling efficiency, higher density, improved serviceability, scalability and manageability.

The Open Rack is delivered turn key complete with chassis, power shelf and PSU, bus bar distribution along with servers, storage nodes and network switches. A revolutionary approach to how Circle B deploys and operate data centres infrastructures... at rack scale.

DESIGN PRINCIPLES OPEN RACK

Compared to conventional EIA 19" rack, Open Rack 21" has a higher compute density and a greater storage capacity. This results in an average 25% better space utilization per rack. The rack has a similar footprint as a 19" rack while dimensions are 1066.8 (d) x 600 (w) x 2220mm (h). Open Rack supports a maximum load of 1400kg and has a capacity of 43 OU.

Open Rack has a centralized power shelf on the rack instead of multiple power supply units in the server. All nodes share this centralized power shelf, thus, providing higher energy efficiency as less overall power conversions are required. The power shelf has 2 x (2+1) redundant) 3300W PSUs, while the maximum power capacity of the Open Rack is 13.2KW.

With Open Rack's signature bus bar and toolless rack designs, cabling and maintenance efforts for Open Rack are reduced to a minimum. Through Power Distribution Unit (PDU) the administrators can remotely monitor and manage rack-level power utilization and PSUs health.

