



# SR 4.5 Rack-Scale System

Rack-scale architecture for hyper-scale datacenters

## Product Highlights

In 2010, to meet the demands from China Internet giants Baidu, Alibaba and Tencent for hyper scale datacenters, Inspur was the first server manufacturer to work on Project Scorpio design and prototype. Today, as the leading supplier for Project Scorpio Rack Scale Servers, Inspur manufactures and deploys the majority of the rack scale servers for Baidu and Alibaba datacenters and already captured over 70% of their market in China.

Inspur SmartRack proves to be the ideal platform for datacenter and cloud deployments. The user operational data thoroughly proved that SmartRack is outstanding in energy consumption, management, space optimization, compute density and deployment speed. The actual measurements from one of the largest and the most complicated online ticket booking system, demonstrated that the energy consumption of SmartRack is 15% lower compared to conventional rack products.

## SmartRack architecture overview

SmartRack: Centralized Power, Cooling and Management at Rack Level: Low TCO, High Efficiency (PUE of 1.3~1.5)

Flexible rack configuration: SmartRack can be customized with identical clustered nodes (like for massive data storage Hadoop Cluster/Cloud resources pools), or mix of different types of nodes for running multiple applications in the same Rack (like WEB server/application server/-file server/GPU server/storage server)

Front I/O, tool-less design for easy service and maintenance strict hot aisle containment: Cold air comes from front and hot air exhausts from the back RMC centralized management, monitoring, diagnostic functions enhance deployment efficiency

Feature	SR 4.5 Rack-Scale System Technical Specification
Network Switches	Compatible with industry standard switches. Up to 6 switches per rack
Central Power Bank	10x 2500W PSU/customizable power redundancy, 208V 3 phase/dual feeds for USA datacenters. 12.5KW single power bank standard per rack. Multiple power banks per rack can be supported for applications requiring higher power consumption, such as up to 4 power banks per rack/25KW for GPU rack
Rack Level Cooling Module	Up to 27 FANs, customizable cooling solutions, N+1 redundancy for each cooling group, rear tool-less maintenance, front inlet, rear air outlet
RMC: Rack Level Management Module	Integrated RMC centralized management module in power bank, supporting status monitoring, log recording, fault alarm and assets management of power supply, fan and nodes
Dimension	24"(W) x 47"(D) x83"(H) for 42U or 91"(H) for 46U
Reference Weight	1200kg / 2646 lbs