Nominee: Schneider Electric

Nomination title: Schneider Electric's Innovative HyperPod™ Rack Ready System Addresses the Need for Flexibility and Speed in IT Deployment

HyperPod™, is a rack ready data centre system designed to deploy IT in increments of 8 to 12 racks quickly and efficiently. With HyperPod, Schneider Electric is addressing the demand for greater compute capacity and flexible data centre architectures and is designed to offer flexibility to data centre operators. Its base frame is a freestanding steel structure that is easy to assemble and available in two different heights, whilst its aisle length is adjustable and can support multi-pod configurations.

Part of Schneider Electric's EcoStruxure™ for Data Center architecture, HyperPod's innovative design supports all of today's rack types. Its pod style architecture, with integrated power, cooling, cabling, software management and containment, enables racks of IT equipment to roll into place, similar to a docking station, without the complexity and time associated with traditional IT deployments.

What are your product's/solution's key distinguishing features and/or USP?

The need to deploy new IT resources quickly and cost-effectively, whether as upgrades to existing facilities or in newly built installations, is a continuing challenge faced by todays data-centre operators. A modular approach enables products from different vendors, and those performing different IT functions, to be racked, stacked and deployed with the minimum of integration effort.

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Feedback from customers found that many wanted a streamlined and more cost-efficient way to deploy IT. HyperPod™ accelerates data centre deployment times by up to 21 percent, whilst delivering a further 15 to 20 percent saving in both time and costs over traditional data centre approaches.

What tangible impact has your product/solution had on the market and your customers?

Research from a recent white paper by Schneider Electrics Data Centre Science Centre found that use of IT Pod Frames can reduce CAPEX by 15%, whilst accelerating both hyperscale and colocation data centre deployments.

In the case of a colocation facility, where the hosting company tends not to own its tenants IT, HyperPod™ allows the cooling infrastructure to be installed before the rack components arrive. It also enables tenants to rack and stack their IT gear before delivery and then place it inside the rack with the minimum of integration effort.

IT Pod Frames such as HyperPod have overhead supports built into the frame, or the option to add such supports later, which hold power and network cabling, bus-way systems or cooling ducts. This capability eliminates most of, if not all of the construction required to build such facilities into the fabric of the building itself. This greatly reduces the time taken to provide the necessary supporting infrastructure for IT equipment.

HyperPod also allows greater flexibility in the choice between a hard or raised floor for a data centre, for example, ducting for cables and cooling can be mounted on the frame, a raised floor is not necessary. If, however, a raised floor is preferred for distributing cold air then the fact that network and power cables can be mounted on the frame, making the use of under floor cooling more efficient. It also removes the need for building cutouts and brush strips that are necessary when running cables under floor, thereby saving both time and construction costs.

Several options are available for distributing power to racks inside the IT pod, including integrating panel boards, hanging busway or row-based power distribution units (PDUs). The HyperPod can also be used in hot or cold aisle cooling configurations and has an optional horizontal duct riser to allow a horizontal duct to be mounted on top of the pod. Vertical ducts can also be accommodated.

Analytical studies based on standard Schneider Electric reference designs provide an overview of the available savings in both time and costs that can be achieved using a Pod Frame. Taking the example of a 1.3MW IT load distributed across nine IT pods, each containing 24 racks a comparison was made between rolling out the racks using an IT Pod Frame as opposed to a traditional deployment.

CAPEX Costs were reduced by 15% when the IT Pod Frame was used. These were achieved in a number of ways. Ceiling construction costs were reduced by eliminating the need for a grid system to supply cabling to individual pods, meaning all that was required was a main data cabling trunk line down the centre of the room with the IT Pod Frame used to distribute cables to the individual racks.

The time to deployment using an IT Pod Frame was 21% less when compared with traditional methods. This was mainly achieved through the reduced requirement for building work, namely ceiling grid installations, under-floor cutouts and the installation of under-floor power cables. Assembly of the air containment system was also much faster using a Pod Frame due to the components being assembled directly on to the frame.

In conclusion, using an IT Pod Frame such as Schneider Electric's HyperPod™ can produce significant cost savings when rolling out new IT resource in a data centre.

What are the major differentiators between your product/solution and those of your primary competitors?

There are no other solutions like HyperPod™ available in the market, meaning Schneider Electrics focus on technology innovation in the data centre space has pioneered another advanced and industry leading infrastructure solution for todays colocation and hyperscale providers

HyperPod™ is part of Schneider Electric's EcoStruxure for Data Centers™, an open, interoperable, IoT-enabled system architecture delivering enhanced value around safety, reliability, efficiency, sustainability, and connectivity for customers. It can accelerate data centre deployment times by up to 21%, whilst reducing CAPEX Costs by 15%.

EcoStruxure leverages technologies in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level including Connected Products, Edge Control, and Apps, Analytics & Services. EcoStruxure has been deployed in 450,000+ installations, with the support of 9,000 system integrators, connecting over 1 billion devices.

Why nominee should win

1. HyperPod™ is the only IT-Pod Frame solution available today in the data centre market space.

2. HyperPod™ accelerates data centre deployment times for colocation and hyperscalers by up to 21%.

3. HyperPod™ can reduce CAPEX Costs by 15%.

4. Its pod style architecture, with integrated power, cooling, cabling, software management and containment, enables racks of IT equipment to roll into place without the complexity and time associated with traditional IT deployments.

5. It is part of Schneider Electric's EcoStruxure for Data Centers, an open, interoperable, IoT-enabled system architecture delivering enhanced value around safety, reliability, efficiency, sustainability, and connectivity for customers.