Swedish Modules - 300kw Product Submission Presentation

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Historical Background

MDC Sub Project received input from the Community by performing surveys. The questions asked were,

- Where do you see Modular DC provide most value?

- How many racks are you aiming to deploy (new sites)?

- How many racks are you aiming to deploy (extension of old sites)?

- Typical density per rack?

We received survey answers from 24 member Companies

Input from OCP Community

- MDC provides value in both Edge and Hyperscale sites!

- Deployment of compute in number of racks in new and old Sites

    - 1-20 (Telco, Colo and Hyperscale) *Stand alone 90kW*

    - 20-100 (Telco, Colo and Hyperscale) *Scalable 300kW*

- Typical density requirements per rack

    - 7-10kW (Telco, Colo, Hyperscale)

    - >25kW (HPC)

This is the Baseline for the Open MDC´s design!
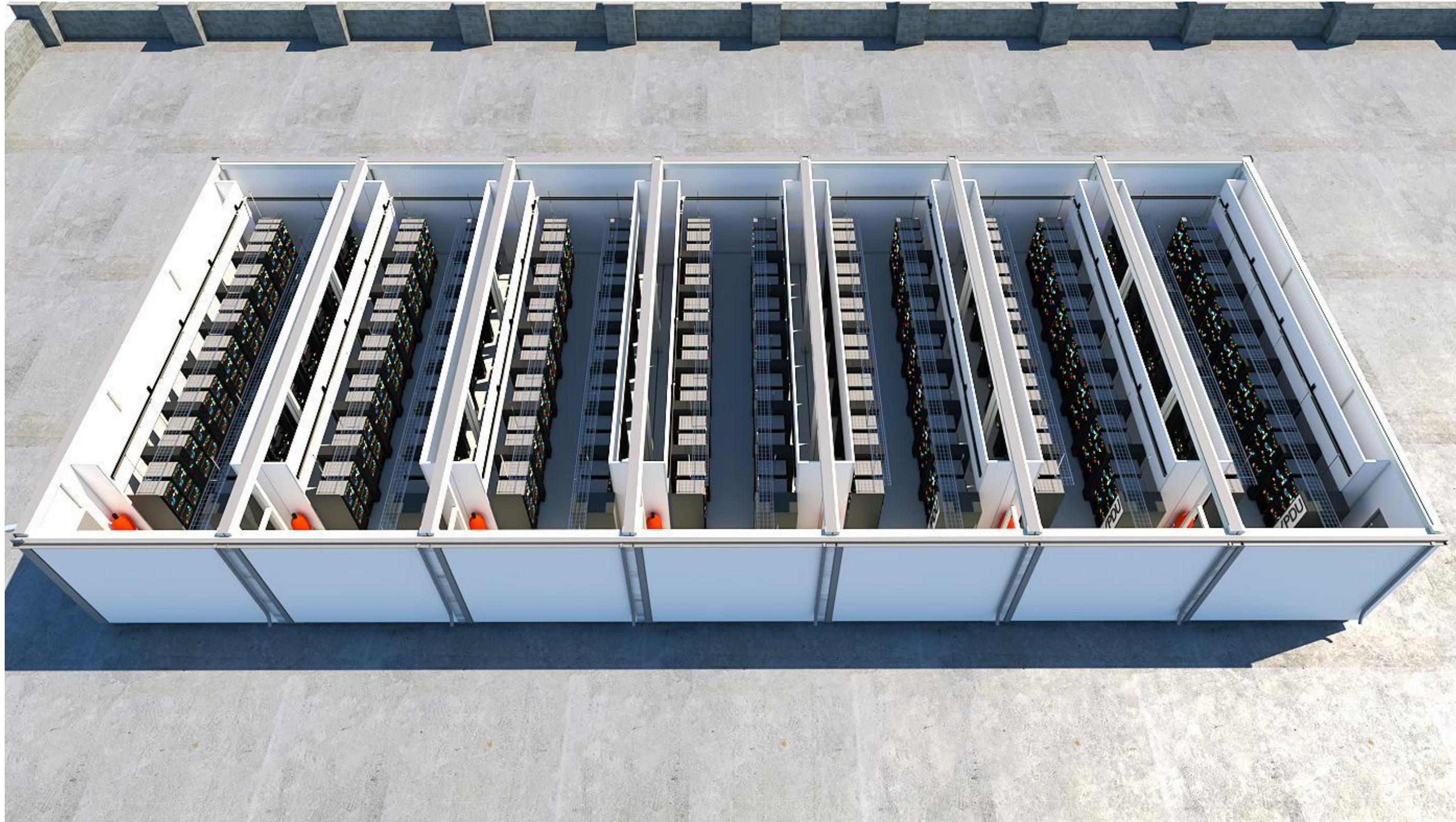
Scalable 300KW Modular Data Center

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Product
Recognition

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Product/Facility Info

The Specification has been OCP Approved!

https://www.opencompute.org/documents/swedish-modules-scaleable-300kw-modular-data-center

Specifications

IT Load:

- 300-500 kW with N+1 internal UPS redundacy

Floor Space:

- Racks: 30/ 28 without UPS/with UPS (average density 10kW/Rack)

- Racks: 28/26 without UPS/with UPS (average density up to 18kW/Rack)

- Internal Space (L x W x H): 13.35m x 4.45m x 3.55m

Cooling System:

- CW system with InRow Coolers @ N+1 Redundancy

Module Weight [kg]:

- 20 350/57 350 Empty no racks or IT equipment/Fully equipped racks

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OCP Tenets

Efficiency

Prefabricated modules allow for manufacturing and deployment efficient, minimizing the amount of work onsite. The base design of this module is CW cooling for best energy efficiency with hot aisle containment. It also creates opportunities for reuse of the waste energy, with an high outlet temperature from the Cooling System (above 30℃ is possible to achieve)

Scalability

This design is for Data Centers with 20 racks and more and it scales with good cost- and energy efficiency, for customers who look for "pay as you grow" solutions.
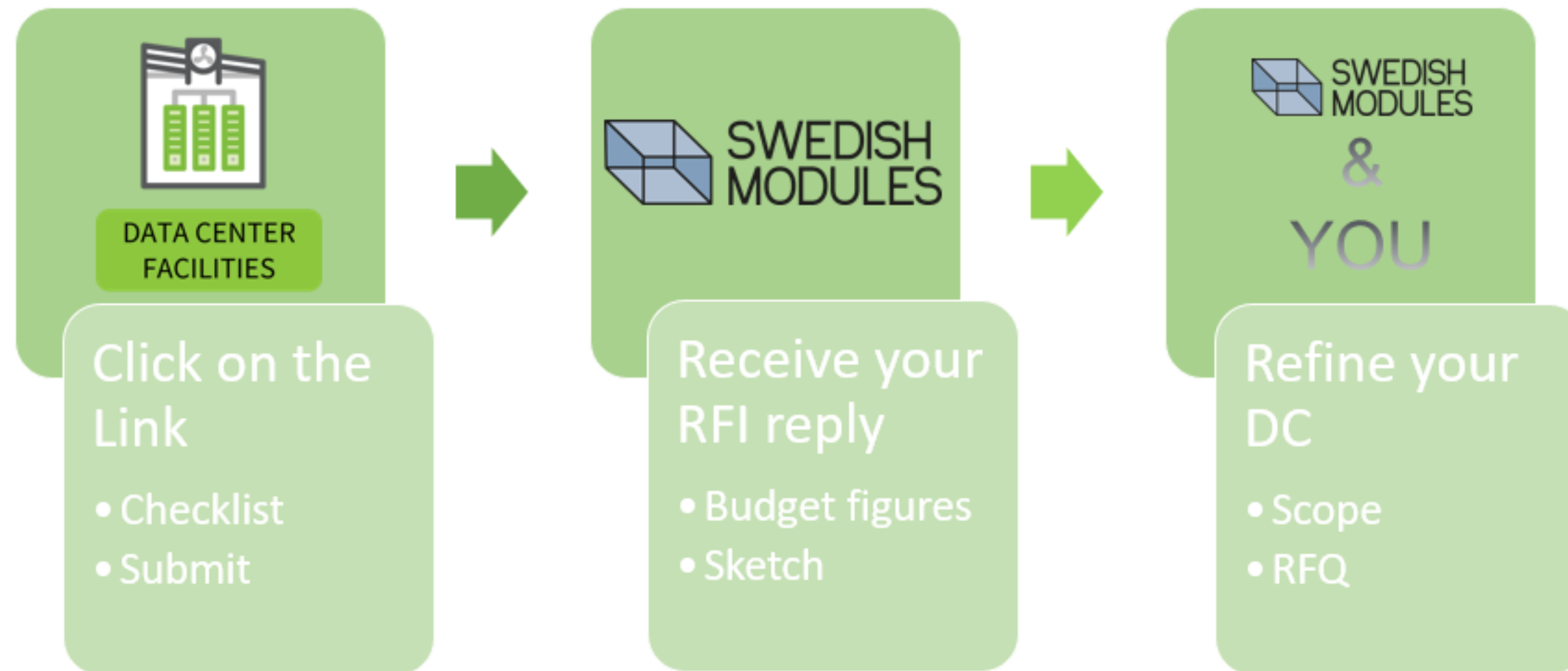
Openness

This specification will allow multiple vendors to bid on the same concept, giving users choice and supply chain redundancy.

Impact

This effort is the industry's first attempt to standardize how prefabricated MDCs are described. If adopted and further developed, it will vastly improve the efficiency in which customers and vendors specify MDCs.

Call to Action

How to approach with your interest for OCP MDC