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Data Center
Facility

Open MDC 1.0 Modular Data Center Optimized for OCP hardware

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The Project

a Subproject within the DCF Project

Launched at the OCP Summit in San Jose March
2018

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The Main Objectives

Optimize the design for best **maintainability**

Optimized the design for best **scalability**

Energy efficient power & cooling design

Minimum Viable Product regarding **robustness**

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The Module Design

All in One 12 Racks



Scalable Module from 30 Racks

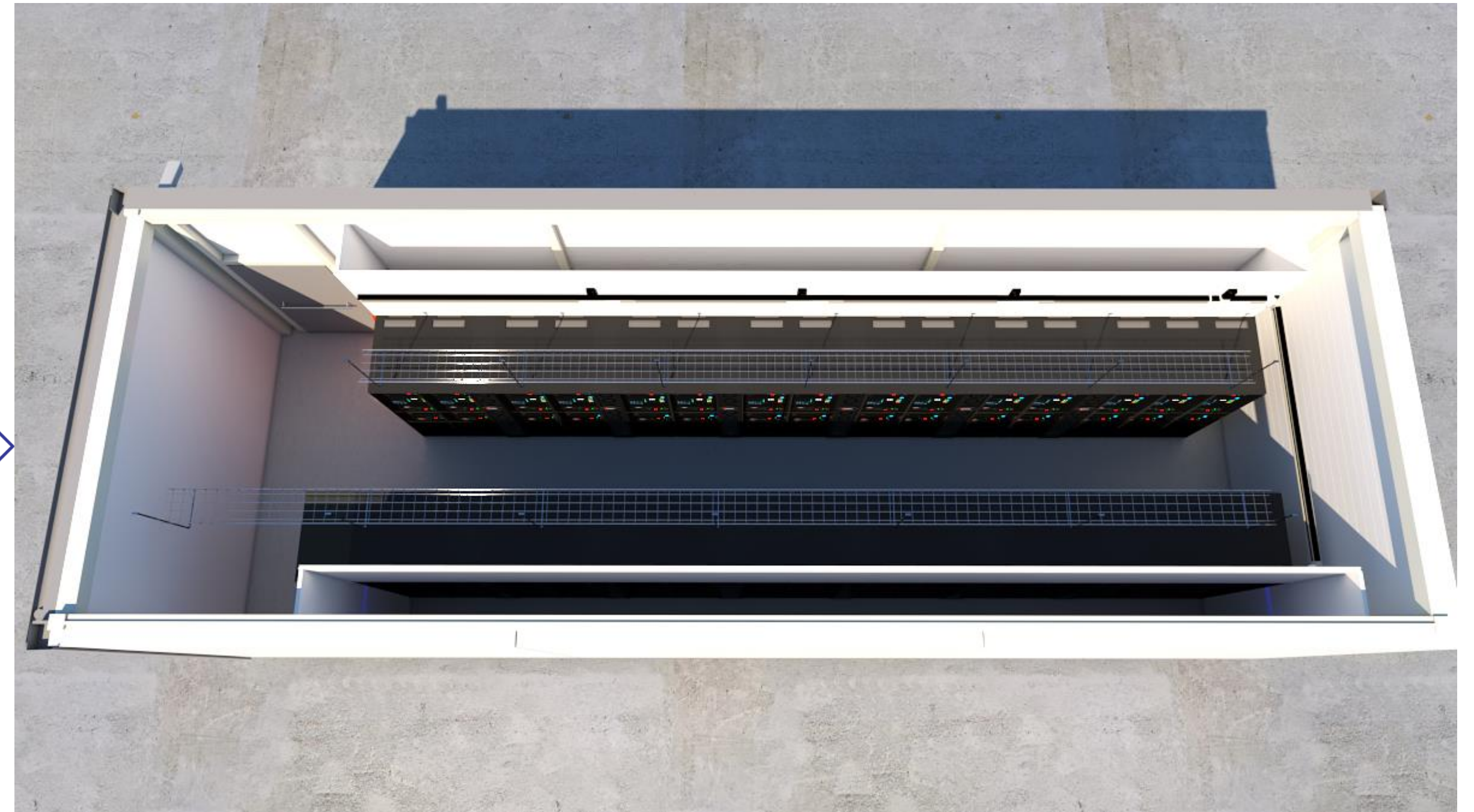
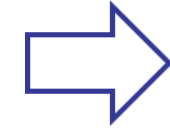


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The Optimized design for Maintenance

“All Equipment maintained from the front side of the racks”



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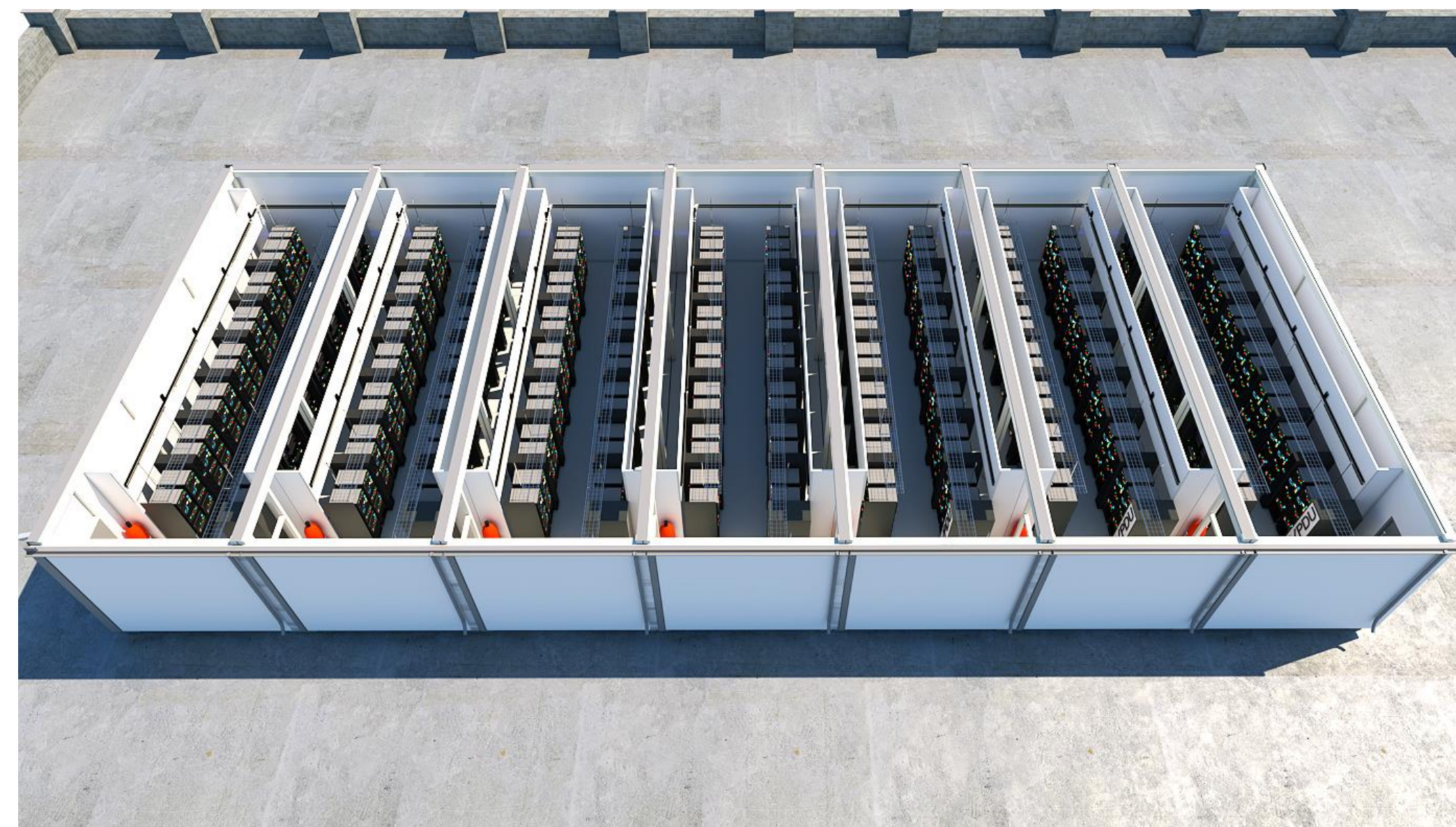


Guidelines for the Maintenance objective

- All maintenance in cold aisle in front of the racks
- In-row Coolers maintainable from the cold aisle
- Cold aisle is best climate zone for technicians



The Optimized design for Scalability



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Guidelines for the Scalability objective

- Scalable with minimum effort of site assembly
- Scalable with minimum impact of the energy efficiency
- Scalable with minimum impact of redundancy
- Cost and time efficient deployment on site

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The Optimized design for Energy Efficiency

*“Hot aisle
Containment for
best efficiency”* ➡



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Guidelines for the Energy Efficiency objective

- Airflow management system with Hot aisle containment
- Flexible cooling system Chilled Water or DX
- Maintain efficiency when scaling out



The Guidelines for a Minimum Viable Product regarding Robustness



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Guidelines for the MVP regarding Robustness

- Fire protection 60 min fire proof shell
- Burglary protection steel in walls and ceiling
- Alarms fire and intruder alarms
- Applicable Standards ASHRAE, BICSI - Best practise
- DCIM TCP/IP compatible interface

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The road to a successful Open Innovation Project

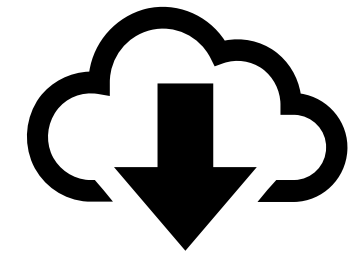
- Ask the end users to participate
- Involved the top players in the Industry
- Be humble

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The OCP Project Process



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Our Mission is to build the infrastructure for the Digital Society

Maintainability - Cost- and Energy Efficiency

Openness – Scalability

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