	OCP Ready v2 for Hyperscale Data Center Site Assessment	*SIN01*		
	Self Assessment Status:	COMPLETE-MEETS REQUIREMENTS		
	Data Center Location Name	SIN01 - SINES Campus		
	Data Center Location Address	STARTCAMPUS, Lote 1, Zona C1.1, ZILS, 7520-318 Sines, Portugal		
	Site Development Category:	1. Multi-tenant Capacity Available	01/01/2024	
	Site Description: IT Technical Space (White Space) Area	3300 m2, in 3 data halls, 1100m2 each		
	Site Description: Critical IT Power	12 MW IT Day 1 and 15MW IT Day Final. Design for building upgrade up to 31 MW IT is in progress. Best PUE in the market.		
	Site Description: Network Provider Availability	Carrier Neutral Data Center.		
	Site Description: Facility Features	Private storage and office space available. SIN01 is the first building of a 1.2 GW IT Data Center.		
	Site Description: Other Services	24/7 Security and Ops on Site. Remote Hands services available.		
	Date Original Assessment is Completed	03/03/2025		
	Re-Assessment Date:	05/28/2025		
Ref:	**REQUIREMENTS - Attribute (Must have an Optimum or Acceptable result)**	**Parameter**	**Result**	**Notes/ Actual Parameters**
1	**CAMPUS SITE ACCESS & LOGISTICS**			
1.0	**SITE ACCESS**			
1.0-A	Vehicular Access inc. truck circulation	1. Roadway access to loading dock to allow for a trailer 12.2m (40') Wheelbase	**Optimum**	
1.0-B	Building Access	1. Covered loading dock with leveler	**Optimum**	2x loading dock with leveler and 1x loading dock with material lift
1.0-C	Delivery pathway, Loading dock to storage room	1. ≥ 2.75m (108in) H x ≥ 1.6m (63in) W unobstructed access and threshold free	**Optimum**	
1.0-D	Delivery pathway, Goods in to IT Technical Space	1. ≥ 2.75m (108in) H x ≥ 1.6m (63in) W unobstructed access and threshold free	**Optimum**	
1.0-E	Corridor floor rolling load	1. ≥680 kg (1500 lb/ft2) (6.67 kN) slab on grade	**Optimum**	
1.0-F	Unboxing/pre-staging/storage area floor uniform load	1. ≥1221 kg/m2 (250 lb/ft2) (11.97 kN/m2) slab on grade	**Optimum**	
1.0-G	Unboxing/pre-staging/storage area floor concentrated load	1. ≥680 kg (1500 lb/ft2) (6.67 kN) slab on grade	**Optimum**	
1.1	**ACCESS CONTROLS & MONITORING**			
1.1-A	Site perimeter fence	1. ≥2.43m (96in) H with perimeter intrusion detection system (PIDS)	**Optimum**	PIDS can be installed as customer request
1.1-B	Site security lighting	1. Site lighting with backup power	**Optimum**	
1.1-C	Main Security Checkpoint (or check in location)	1. Staffed 24/7	**Optimum**	
1.1-D	Levels of security to gain access to IT Technical Space	1. >3 (site perimeter, building perimeter, secure corridor and IT Technical Space)	**Optimum**	
1.1-E	Video surveillance data record archive	1. >30 days	**Optimum**	
1.1-F	Visitor access requirements	1. Pre-approved with valid government issued ID and escorted	**Optimum**	
1.1-G	Entrance and exit door monitoring	1. All entrance and exit doors are electronically monitored and recorded	**Optimum**	Entrance and exit doors are access controlled or status monitored and alarmed and monitored with video surveillance.
1.2	**RAMPS**			
1.2-A	Gradient	1. Not Applicable - No Ramps Required	**Optimum**	
1.2-B	Length	1. Not Applicable - No Ramps Required	**Optimum**	
1.2-C	Width	1. Not Applicable - No Ramps Required	**Optimum**	
1.2-D	Landing area	1. Not Applicable - No Ramps Required	**Optimum**	
1.2-E	Railings	1. Not Applicable - No Railings Required	**Optimum**	
1.3	**FREIGHT LIFTS / ELEVATORS**			
1.3-A	Weight loading	1. Not Applicable - No Lift/Elevator Required	**Optimum**	
1.3-B	Door height	1. Not Applicable - No Lift/Elevator Required	**Optimum**	
1.3-C	Width	1. Not Applicable - No Lift/Elevator Required	**Optimum**	
1.3-D	Depth	1. Not Applicable - No Lift/Elevator Required	**Optimum**	
2	**IT TECHNICAL SPACE (WHITE SPACE)**			
2.0	**STRUCTURAL**			
2.0-A	Floor rolling load	1. ≥680kg (1500lb) (6.67kN) slab on grade	**Optimum**	
2.0-B	Floor uniform load	1. ≥1221 kg/m2 (250 lb/ft2) (11.97 kN/m2) slab on grade	**Optimum**	Floor uniform load is 1600 kg/m2 16 kN/m2 slab on grade.
2.0-C	Floor concentrated load	1. ≥680kg (1500lb) (6.67kN) slab on grade	**Optimum**	
2.0-D	Finished floor to ceiling height	1. ≥4.5m (178in) clear space (no obstructions)	**Optimum**	Finished floor to ceiling height is 5mts.
2.0-E	Access floor	1. Not Applicable - No Access floor	**Optimum**	
2.1	**ELECTRICAL**			

2.1-A	Class Rating	1. 3 (e.g. Bicsi F3 or UTI Tier 3 Notes Required)	Optimum	System is designed following to Tier 3 requirements.
2.1-B	Row level diverse power feeds	1. 2N (A+B)	Optimum	
2.1-C	Nominal circuit capacity	1. 1ϕ and 3ϕ circuits available based on customer requirements (e.g. 1ϕ 230-240V, 3ϕ 400V-415V Notes Required)	Optimum	We can provide 1ϕ and 3ϕ, from 16A/230V up to 400A/400V. 3ϕ 100A 400V R-PDUs is the most common for high density, and 3ϕ 32A 400V R-PDUs for racks up to 20 kW.
2.1-D	Circuit frequency	1. 47-63 Hz	Optimum	
2.1-E	Power receptacle / WIP Type	1. All power receptacle types supported	Optimum	Busbar Tap off has been provided. End user dependant
2.1-F	Circuit receptacle location	1. Overhead busbar	Optimum	
2.1-G	Upstream UPS options	1. N+N UPS feed	Optimum	
2.1-H	Rack-based batteries permitted	1. Allowed	Optimum	Subject to local code restrictions
2.1-I	Generator load acceptance time	1. <20 seconds	Optimum	
2.2	**COOLING**			
2.2-A	Class Rating	1. 3 (e.g. Bicsi F3 or UTI Tier 3 Notes Required)	Optimum	System is designed following to Tier 3 requirements.
2.2-B	Supplemental Advanced Cooling	1. Not Applicable	Optimum	
2.2-C	Rack airflow direction	1. Front to Back	Optimum	
2.2-D	Air containment methods	1. Hot aisle containment	Optimum	
2.2-E	Maximum rack density	1. ≥12kW	Optimum	
2.2-F	Minimum cold aisle width	1. ≥1400mm (56in)	Optimum	
2.2-G	Minimum free width cold aisle (Inside cage)	1.≥1400mm (56in)	Optimum	
2.2-H	Minimum hot aisle width	1. ≥1200mm (48in)	Optimum	
2.2-I	Inlet air conditions	1. ASHRAE Recommended	Optimum	
2.2-J	Air quality	1. MERV 8 filters on outside air	Optimum	
2.2-K	Temperature rise	1. ≥12 Deg C DeltaT	Optimum	
2.2-L	Cabinet blanking of open space	1. Mandatory	Optimum	
3	**TELECOMMUNICATIONS**			
3.1	**ACCESS PROVIDERS AND OUTSIDE PLANT (OSP) Fiber**			
3.1-A	OSP fiber to data center campus	1. 3 diverse OSP entrances to the data center campus	Optimum	
3.1-B	Carriers and backbone providers	1. Carrier neutral with expansion capability (Notes Required)	Optimum	SIN01 is a Carrier Neutral Data Center. Currently we have 5 fiber providers reaching the site.
3.2	**MEET-ME ROOMS (MMRS)**			
3.2-A	Number and Location	1. N+N Isolated MMRs with dedicated OSP fiber entrance from service providers	Optimum	
3.3	**MMR CABLING**			
3.3-A	MMR to IT Technical Space Pathways	1. 2 dedicated diverse pathways from 2 MMRs	Optimum	
3.3-B	MMR to IT Technical Space Conduit Pathway sizing	2. Customer dependent (Notes Required)	Acceptable	Cable tray is provided for communication between MMR and IT Technical space. Dedicated secure trunking or conduit available under request.
3.4	**MMR ELECTRICAL**			
3.4-A	Class Rating	1. 3 (e.g. Bicsi F3 or UTI Tier 3 Notes Required)	Optimum	System is designed following to Tier 3 requirements.
3.4-B	Row level diverse power feeds	1. 2N (A+B)	Optimum	
3.4-C	Nominal circuit capacity	1. 1ϕ and 3ϕ circuits available based on customer requirements (e.g. 1ϕ 230-240V, 3ϕ 400V-415V Notes Required)	Optimum	1ϕ 16A/230V & 3ϕ 32A 400V
3.4-D	Circuit frequency	1. 47-63 Hz	Optimum	
3.4-E	Upstream UPS options	1. UPS systems derived from an isolated house lineup	Optimum	
3.4-F	UPS Redundancy	1. N+1	Optimum	
3.4-G	Generator load acceptance time	1. <20 seconds	Optimum	
3.5	**MMR COOLING**			
3.5-A	MMR cooling redundancy per room	1. N+N	Optimum	
3.5-B	MMR cooling system type	2. Chilled water	Acceptable	

3.5-C	MMR cooling isolation	1. Isolated from IT technical space cooling system	Optimum	MMRs are fed from the critical cooling loop, with dedicated CRAH units, 2N for the entire MMR capacity, which until now has not been a concern for any customer (including hyperscalers). We can service one entire CRAH unit, or isolate the ring, without affecting the N capacity of the room. The system is installed, commissioned and operational. Under a strict requirement of isolated cooling system, we could provide DX units.
3.6	**MMR ACCESS CONTROLS**			
3.6-A	Customer access to MMR(s)	1. Controlled by the colocation data center and escorted	Optimum	MMRs are a restricted area. Access should be requested via Client Portal. Once authorized, customers are escorted by Security.
3.6-B	Service Provider access to MMR(s)	1. Controlled by the colocation data center and escorted	Optimum	MMRs are a restricted area. Access should be requested via Client Portal. Once authorized, customers are escorted by Security.
3.6-C	Biometric readers, badge readers, and video surveillance installed for the MMR(s)?	1. Yes	Optimum	
4	**SERVICE**			
4.1	**OPERATIONS AND SPARE PARTS**			
4.1-A	Critical spares program	1. On hand spares available on campus	Optimum	Based on manufacturer recommendations.
4.1-B	Critical Response SLA	1. Yes	Optimum	
4.1-C	Remote hands program	1. Yes	Optimum	
4.1-D	Office Space	1. Dedicated space available for fitout	Optimum	
5	**EFFICIENCY**			
5.0-A	Site Operations Standards	1. Other (Notes required)	Optimum	BICSI standard is followed as a guideline. We implement industry best practices, equipment manufacturers recommendations and customer specific requirements.
5.0-B	Operational Sourcing Standard	1. Hybrid	Optimum	
5.0-C	Work Note Communication and Coordination	1. Yes (e.g. Dedicated portal, Teams, Sharepoint)	Optimum	All O&M activities are recorded in Planon software.
5.0-D	Site PUE Monitoring	1. Continuously monitored	Optimum	
5.0-E	Site Design PUE at Full Load	1. <1.3 @ 80% Max Utilization	Optimum	
5.0-F	Site Annualized PUE Current Achievement	1. <1.3 @ 80% Max Utilization	Optimum	
5.0-G	Site WUE Monitoring	1. Continuously monitored	Optimum	WUE is calculated every month and reported yearly to EU commission.
5.0-H	Site CUE Monitoring	1. Continuously monitored	Optimum	CUE is calculated every month and reported yearly to EU commission.
6	**OPENNESS**			
6.0-A	PUE Published	1. Real-time available online	Optimum	Available for our customers through client portal
6.0-B	Facility Design Drawings & Files	1. Available to view upon request	Optimum	NDA is required.
6.0-C	BMS / PMS Customer Access	1. External access provided through a MQTT Broker or other air gapped connection for telemetry purposes. (e.g. power monitoring)	Optimum	Energy consumption, temperature, humidity and PUE available for our customers through client portal
7	**CERTIFICATIONS**			
7.0-A	ISO/IEC 27001	1. Certification achieved	Optimum	
7.0-B	SOC 1 Type II	1. Certification available on request	Optimum	If a customer requires it, we will accelerate the certification process.
7.0-C	SOC 2 Type II	1. Certification available on request	Optimum	If a customer requires it, we will accelerate the certification process.
7.0-D	PCI-DSS	1. Certification available on request	Optimum	If a customer requires it, we will accelerate the certification process.
7.0-E	Sustainability Assessment	1. LEED Certification in process	Optimum	Leed Gold BD+C Certification in Progress
7.0-F	Data Center Certification	2. Other (Notes Required)	Acceptable	System is designed following to Tier 3 requirements.