

OCP Ready COLO Facility Assessment		GIGA Data Center-1		
Self Assessment Status:		COMPLETE-MEETS REQUIREMENTS		
Data Center Location Name		GIGA Data Center-1		
Data Center Location Address		1035 Mecklenburg Hwy, Mooresville, NC 28115		
Site Description: White Space Area		10219 sqm (110,000 sqft)		
Site Description: Critical IT Power		3MVA		
Site Description: Network Provider Availability		Multiple Tier 1 Service Providers, 4 onsite with more coming		
Site Description: Facility Features		24x7x4ever Security, Modular Enclosures w/integrated adiabatic cooling, Hot & Cold aisle containment, Overhead Busway distribution		
Site Description: Other Services		Colocation, Managed Hosting, Private Cloud Hosting, Smart Hands, SSAE16, SOC2, HIPAA, PCI DSS		
Date Original Assessment is Completed		2019-04-30		
Re-Assessment Date:		2020-08-06		
REQUIREMENTS - Attribute	Parameter	Result	Notes	
ACCESS				
Building Access	1. Loading dock with lift or leveler	Optimum	1. Loading dock with leveler, and 2. Lift drive-in bays	
Delivery pathway, Loading dock to Goods in	1. $\geq 2.7m$ (108in) H x $\geq 2.4m$ (96in) W x $\geq 2.4m$ (96in) D unobstructed access and threshold free	Optimum	1. Unobstructed, truck size pathway from loading dock to main data center hall	
Delivery pathway, Goods in to White space	1. $\geq 2.4m$ (96in) H x $\geq 1.5m$ (72in) W unobstructed access and threshold free	Optimum	1. Unobstructed, truck size pathway from loading dock to main data center hall	
Corridor floor rolling load	1. $\geq 680kg$ (1500lb) (6.67kN)	Optimum	5 foot deep concrete floor	
Unboxing/pre-staging/storage area floor uniform load	1. $\geq 1221kg/m^2$ (250lb/ft ²) (11.97kN/m ²)	Optimum	5 foot deep concrete floor with epoxy coating, one side of main and south side of building	
Unboxing/pre-staging/storage area floor concentrated load	1. $\geq 680kg$ (1500lb) (6.67kN)	Optimum		
RAMP				
Gradient	1. Not Applicable - No Ramps Required	Optimum	No ramps or thresholds between loading dock and WindChill Modular enclosures on data center hall	
Width	1. Not Applicable - No Ramps Required	Optimum		
Landing area	1. Not Applicable - No Ramps Required	Optimum		
Railings	1. Not Applicable - No Railings Required	Optimum		
LIFTS / ELEVATORS				
Weight loading	1. Not Applicable - No Lift/Elevator Required	Optimum	No elevators, all on main floor	
Door height	1. Not Applicable - No Lift/Elevator Required	Optimum	No elevators, all on main floor	
Width	1. Not Applicable - No Lift/Elevator Required	Optimum	No elevators, all on main floor	
Depth	1. Not Applicable - No Lift/Elevator Required	Optimum	No elevators, all on main floor	
WHITE SPACE				
Floor rolling load	1. $\geq 680kg$ (1500lb) (6.67kN)	Optimum	5 foot deep concrete floor with epoxy coating	
Floor uniform load	1. $\geq 1221kg/m^2$ (250lb/ft ²) (11.97kN/m ²)	Optimum		
Floor concentrated load	1. $\geq 680kg$ (1500lb) (6.67kN)	Optimum		
Finished floor to ceiling height	1. $\geq 4.5m$ (180in)	Optimum	Data center hall floor-to-ceiling: 5.0m, WindChill Enclosure interior floor-to-ceiling: 8.5 ft	
Access floor clearance	1. Not Applicable - No Access Floor	Optimum		
ELECTRICAL				
Number of independent circuits to the rack	1. 2N (A+B)	Optimum	A & B bus standard for concurrent maintainability	
Circuit capacity	1. 3ø 32A/230V	Optimum	400V through mainline overhead busway distribution	
Circuit voltage	1. 400/230 VAC nominal	Optimum	400V through mainline overhead busway distribution so can support 400/230VAC	
Circuit frequency	1. 47-63 Hz	Optimum	60Hz for US-based facility	
Power receptacle / W/P Type	1. IEC60309 480V/90V or Hubbell CS350L, or Russellstrohl 985312W	Optimum	Power strip connected to metered bus prog to provide revenue grade power metering	
Circuit receptacle location	1. Overhead	Optimum	400V through mainline overhead busway distribution	
Upstream UPS options	1. UPS and non UPS feeds available	Optimum	200V through mainline overhead busway distribution	
Rack-based batteries permitted	1. Allowed	Optimum	double-conversion operations or 99% on Eco-mode	
Generator load acceptance time	1. <60 seconds	Optimum	belly tanks	
COOLING				
Rack airflow direction	1. Front to Back	Optimum	WindChill enclosure pre-cooled air in cold aisle to put positive pressure in front of racks, and negative pressure in back aisle to prevent air from back aisle isolation to facilitate a guaranteed PUE of 1.15	
Air containment methods	2. Hot/Cold aisle containment for air cabinets in white space	Acceptable	WindChill enclosure pre-cooled air in cold aisle to put positive pressure in front of racks, and negative pressure in back aisle to prevent air from back aisle isolation to facilitate a guaranteed PUE of 1.15	
Maximum rack density	1. $\geq 12kw$	Optimum	WindChill Enclosure, or up to 50kW for a rack in the back aisle can accommodate 2000w per rack in cold & hot aisles, so greater cold aisle width can be	
Minimum cold aisle width	2. $\geq 1200mm$ (48in)	Acceptable	WindChill Enclosure, or up to 50kW for a rack in the back aisle can accommodate 2000w per rack in cold & hot aisles, so greater cold aisle width can be	
Minimum free width cold aisle (inside cage)	1. $\geq 1200mm$ (48in)	Optimum	WindChill Enclosure, or up to 50kW for a rack in the back aisle can accommodate 2000w per rack in cold & hot aisles, so greater cold aisle width can be	
Minimum hot aisle width	2. $\geq 900mm$ (36in)	Acceptable	WindChill Enclosure, or up to 50kW for a rack in the back aisle can accommodate 2000w per rack in cold & hot aisles, so greater hot aisle width can be	
Inlet air conditions	1. ASHRAE Class A1 Allowable	Optimum	We support ASHRAE TC 9.9 guidelines	
Air quality	1. EN 779 G4 and F7 filtering & Gas particulate monitoring to the ANSI/ASHA 74 DM-1985 G severity	Optimum	We support ASHRAE TC 9.9 guidelines	
Temperature rise	1. ≥ 12 Deg C Delta T	Optimum	WindChill enclosure	
Cabinet blanking of open space	1. Mandatory	Optimum	We can deliver a 24 degree F Delta T	
CABLING				
Cabling infrastructure pathways	1. Top and Front of rack fed	Optimum	Can feed power whips to either front or rear of rack	
Overhead Network Infrastructure containment levels	1. 3 levels (intra-rack cabling, inter-rack cabling, Core cabling)	Optimum	400Gbps network fabric between WindChill	
Fibre Type (if installed)	1. OS2 & OM4	Optimum	OS2 is pre-installed for runs to Network Core rooms. Multi-mode available in stock and installed	
Fibre connection presentation (if installed)	2. Installed Per Customer Requirements	Acceptable	OS2 is pre-installed for runs to Network Core rooms. Multi-mode available in stock and installed	
CONSIDERATIONS (For information only)				
	Parameter	Result	Notes	
Replacement PSU Modules	2. Secure storage available	Acceptable	While Power Shelf inventory can be kept on-site for customers, we don't currently carry these units in	
Replacement BBU Modules	2. Secure storage available	Acceptable	While Battery Backup Unit inventory can be kept on-site for customers, we don't currently carry these	
Option to monitor PSUs and BBUs	1. Yes	Optimum	So long as the protocol is not proprietary, we can monitor it through the Desigo BAS system.	
Remote hands for PSU and BBU replacement or expansion	1. Yes	Optimum	Onsite technicians available 24x7x365 for remote hands support	
Remote hands for OCP IT hardware replacement or expansion	1. Yes	Optimum	Onsite technicians available 24x7x365 for remote hands support	
EFFICIENCY				
Site Operations Standards	1. OCP Critical Facility Operations Guidelines	Optimum	Adopted in 2020	
Site PUE Monitoring	1. Continuously monitored	Optimum	Only way we can guarantee a PUE of 1.15	
Site Design PUE	1. <1.2	Optimum	Designed for maximum PUE of 1.15	
Site Annualized PUE Current Achievement	2. Other (Notes required)	Acceptable	OCP-NETLE site has delivered 1.08 PUE average since 2012 commissioning. Our DC-1 facility is new	
Site WUE Monitoring	1. Continuously monitored	Optimum	Adiabatic cooling requires 98% less water than cooling tower, so we track water use by enclosure	
Site CUE Monitoring	2. Other (Notes required)	Acceptable	We use the calculated method where CUE = CEF x PUE. As our primary power comes from emission	
OPENNESS				
PUE Published	2. Other (Notes required)	Acceptable	Real-time availability is presented in the data center and will be published on the website after	
Facility Design Drawings & Files	2. Available to view upon request	Acceptable	Not all drawings are available on line, but can be provided upon request	