		Data Contor			
OCP Ready COLO Facility Assessment	GIGA	Data Center	-1		
Self Assessment Status:	COMPLETE-MEETS REQUIREMENTS				
Data Center Location Name	G	IGA Data Center-1			
Data Center Location Address	1035 Mecklenb	urg Hwy, Mooresville	, NC 28115		
Site Description: White Space Area	1021	3MVA			
Site Description: Network Provider Availability	SIVIVA Multiple Tier 1 Service Providers 4 onsite with more coming				
Site Description: Facility Features	24x7x4ever Security, Modular Enclosures w/integrated adia	abatic cooling, Hot &	Cold aisle containment, Overhead Busway distribution		
Site Description: Other Services	Colocation, Managed Hosting, Private Cl	oud Hosting, Smart Ha	ands, SSAE16, SOC2, HIPAA, PCI DSS		
Date Original Assessment is Completed		2019-04-30			
Re-Assessment Date:		2020-08-06			
REQUIREMENTS - Attribute (Must have an Optimum or Acceptable result)	Parameter	Result	Notes		
ACCESS					
Building Access	1. Loading dock with lift or leveler	Optimum	3 dock-high doors with levelers, and 5 full drive-in		
	1 > 2.7m (108in) H x > 2.4m (96in) W x > 2.4m (96in)		bays		
Delivery pathway, Loading dock to Goods in	D unobstructed access and threshold free	Optimum	dock to main data center hall		
Delivery pathway, Goods in to White space	1. ≥2.4m (96in) H x ≥1.8m (72in) W unobstructed	Optimum	Unobstructed, truck-size pathways from loading		
	access and threshold free		dock to main data center hall		
Corridor floor rolling load	1. ≥680kg (1500lb) (6.67kN)	Optimum	5 foot deep concrete floor		
Unboxing/pre-staging/storage area floor uniform load	1. ≥1221kg/m2 (250lb/ft2) (11.97kN/m2)	Optimum	Two unboxing areas, one each on north and south side of building		
Unboxing/pre-staging/storage area floor concentrated load	1. ≥680kg (1500lb) (6.67kN)	Optimum			
RAMPS					
			No ramps or thresholds between loading dock and		
Gradient	1. Not Applicable - No Ramps Required	Optimum	WindChill Modular enclosures on data center hall floor		
Width	1 Not Applicable - No Ramps Required	Ontimum			
	1. Not Applicable The numps negatica	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	Ontimum			
		optillar	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. ≥680kg (1500lb) (6.67kN)	Optimum	5 foot deep concrete floor with epoxy coating		
Eloor uniform load	1 >1221kg/m2 (250lb/ft2) (11 07kN/m2)	Ontimum	s lost deep concrete noor with epoxy coating		
	1. = 1221Kg/112 (23010/112) (11.97KN/112)	optimum			
Floor concentrated load	1. ≥680kg (1500lb) (6.67kN)	Optimum			
Finished floor to ceiling height	1. ≥4.5m (180in)	Optimum	Data center hall floor-to-ceiling: 30 ft; WindChill Enclosure interior floor-to-ceiling: 8.5 ft		
Access floor clearance	1. Not Applicable - No Access Floor	Optimum			
Number of independent circuits to the rack	1 2N (A+B)	Ontimum			
	1.21((1.5)	optimum	A & B bus standard for concurrent maintainability We run 415V/240V through Starline overhead		
Circuit capacity	1. 3¢ 32A/230V	Optimum	busway distribution		
Circuit voltage	1, 400/230 VAC nominal	Optimum	We run 415V/240V through Starline overhead		
			easily		
Circuit frequency	1. 47-63 Hz	Optimum	60Hz for US-based facility		
Power recentacle / WIP Type	1. IEC60309 460R9W or Hubbell CS8364C or	Optimum	Power whip connected to metered bus plug to		
	Russelistoll 9R53U2W		provide revenue grade power metering We run 415V/240V through Starline overhead		
Circuit receptacle location	1. Overhead	Optimum	busway distribution		
			Use ABB TLE 1,000kVA UPS, 97% efficiency during		
Upstream UPS options	1. UPS and non UPS feeds available	Optimum	LG lithium-ion batteries use LFP chemistry to		
			remove thermal runaway risk.		
Rack-based batteries permitted	1. Allowed	Optimum			
Generator load acceptance time	1. <60 seconds	Optimum	N+1 Cummins 2.25 MW diesel generators with 72-hr helly tanks		
COOLING					
	1. Front to Dark	Ontinum	WindChill enclosure places fan wall in cold aisle to		
		Optimum	pressure in the hot aisle to remove heat efficiently		
Air containment methods	2. Hot/Cold aisle containment for all cabinets in	Acceptable	WindChill Enclosure provides a standard hot & cold		
	white space		aisle isolation to facilitate a guaranteed PUE of 1.15 We can support up to 40kW for every rack in the		
Maximum rack density	1. ≥12kw	Optimum	WindChill Enclosure, or up to 50kW for a rack in the		
			row so long as total load is <= 400Kw Rack depth can accomodate 50 inches between cold		
Minimum cold aisle width	2. ≥1200mm (48in)	Acceptable	& hot aisles, so greater cold aisle width can be		
			available based on rack depth under 48"		
iviinimum free width cold aisle (Inside cage)	1. ≥1200mm (48in)	Optimum	Pack donth con accorrected 50 to the history		
Minimum hot aisle width	2. ≥900mm (36in)	Acceptable	& hot aisles, so greater hot aisle width can be		
			available based on rack depth under 48"		

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/ISA 74.04-1985 G severity levels	Optimum	We use MERV 11 filters on air inputs into each WindChill enclosure
Temperature rise	1. ≥12 Deg C DeltaT	Optimum	We can deliver a 24 degree F Delta T
Cabinet blanking of open space	1. Mandatory	Optimum	Allows us to deliver a PUE of 1.15
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-Pod cabling; Inter-Pod cabling; OOB cabling)	Optimum	We use the EdgeCore Wedge switch to support 400Gbps network fabric between WindChill Enclosures and the North and South Network (MeetMe) Rooms.
Fibre Type (if installed)	1. OS2 & OM4	Optimum	OS2 is pre-installed for runs to Network & Carrier rooms. Multi-mode available in stock and installed upon request.
Fibre connection presentation (if installed)	2. Installed Per Customer Requirements	Acceptable	LC Single-mode comes pre-installed, as that is the most frequent requirement in colocation. However, multi-mode can be installed upon request.
CONSIDERATIONS (For information only)	Parameter	Result	Notes
SERVICE	•		
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 stock.
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 units in stock.
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	DOE-NETL site has delivered 1.06 PUE average since 2012 commissioning. Our DC-1 facility is new and we guarantee a PUE of 1.15
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 emmission free sources (hydro & nuclear), we expect this faactor to remain quite low.
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 operations commence
Facility Design Drawings & Files	2. Available to view upon request	Acceptable	Not all drawings are available on line, but can be provided upon request