

OCP Ready COLO Facility Assessment		QScale Q01		
Self Assessment Status:		COMPLETE-MEETS REQUIREMENTS		
Data Center Location Name		QScale Q01		
Data Center Location Address		2280 Albert-Dion St, Levis, Quebec, Canada		
Site Description: White Space Area		Phase 1: 39,000 sq. ft. white space available. 8 phases planned (one per year) for a total of 312,000 sq. ft. – Phase 2 in construction (2023 availability).		
Site Description: Critical IT Power		Phase 1: 12MW IT commissioned. 8 phases planned (one per year) for a total of 96MW IT. Phase 2 in construction (2023 availability). 142MW secured power capacity. QScale-owned 266MVA 2N 120kV substation with active-active utility feeds.		
Site Description: Network Provider Availability		Planned for all major Canadian telecom providers. 2 are currently being installed.		
Site Description: Facility Features		Flexibility to host power-intensive liquid-cooled racks of 200kW+ density along with more traditional air-cooled servers in the same environment. Free cooling possible up to 80% of the year due to cold climate.		
Site Description: Other Services		Next-generation waste-heat energy recovery and reuse system. Among the least expensive green power in North America and the world. Stable, predictable, regulated, and affordable hydropower.		
Date Original Assessment is Completed		9/26/2022		
Re-Assessment Date:				
REQUIREMENTS - Attribute (Must have an Optimum or Acceptable result)	Parameter		Result	Notes
ACCESS				
Building Access	1. Loading dock with lift or leveler		Optimum	
Delivery pathway, Loading dock to Goods in	1. ≥2.7m (108in) H x ≥2.4m (96in) W x ≥2.4m (96in) D unobstructed access and threshold free		Optimum	
Delivery pathway, Goods in to White space	1. ≥2.4m (96in) H x ≥1.8m (72in) W unobstructed access and threshold free		Optimum	
Corridor floor rolling load	1. ≥680kg (1500lb) (6.67kN)		Optimum	
Unboxing/pre-staging/storage area floor uniform load	1. ≥1221kg/m2 (250lb/ft2) (11.97kN/m2)		Optimum	
Unboxing/pre-staging/storage area floor concentrated load	1. ≥680kg (1500lb) (6.67kN)		Optimum	
RAMPS				
Gradient	1. Not Applicable - No Ramps Required		Optimum	
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. ≥1500kg (3300lbs)		Optimum	
Door height	1. ≥2.4m (96in) Lift /Elevator door opening height (not internal cabin)		Optimum	
Width	1. ≥1.5m (60in) Unobstructed door opening width		Optimum	
Depth	1. ≥1.5m (60in) Unobstructed cabin depth		Optimum	
WHITE SPACE				
Floor rolling load	1. ≥680kg (1500lb) (6.67kN)		Optimum	
Floor uniform load	1. ≥1221kg/m2 (250lb/ft2) (11.97kN/m2)		Optimum	
Floor concentrated load	1. ≥680kg (1500lb) (6.67kN)		Optimum	
Finished floor to ceiling height	1. ≥4.5m (180in)		Optimum	
Access floor clearance	1. Not Applicable - No Access Floor		Optimum	
ELECTRICAL				
Number of independent circuits to the rack	1. 2N (A+B)		Optimum	
Maximum circuit capacity	1. 3ϕ 32A/230V		Optimum	Larger circuits also available.
Circuit voltage	1. 400/230 VAC nominal		Optimum	415/240 VAC
Circuit frequency	1. 47-63 Hz		Optimum	
Power receptacle / WIP Type	1. IEC60309 532R6W		Optimum	Receptacles provisioned per circuit capacity and customer requirements.
Circuit receptacle location	1. Overhead		Optimum	
Upstream UPS options	1. UPS and non UPS feeds available		Optimum	
Rack-based batteries permitted	1. Allowed		Optimum	

Generator load acceptance time	1. <60 seconds	Optimum	
COOLING			
Rack airflow direction	1. Front to Back	Optimum	
Air containment methods	1. Not Applicable - Rear Door Heat Exchangers (RDHx) Deployed (notes required)	Optimum	Various cooling configurations supported such as direct liquid cooling, immersion cooling, RDHx and hot aisle containment pods with in-row coolers. Designed for each customer to meet their load types and requirements.
Maximum rack density	1. ≥12kw	Optimum	Rack density can be much higher when using direct liquid cooling, immersion cooling and RDHx.
Minimum cold aisle width	1. Not Applicable - Rear Door Heat Exchangers (RDHx) Deployed (notes required)	Optimum	No fixed aisle widths are prescribed. Floor layout is fully customizable to meet customer load types, density, and requirements.
Minimum free width cold aisle (Inside cage)	1. Not Applicable - Rear Door Heat Exchangers (RDHx) Deployed (notes required)	Optimum	No fixed aisle widths are prescribed. Floor layout is fully customizable to meet customer load types, density and requirements.
Minimum hot aisle width	1. Not Applicable - Rear Door Heat Exchangers (RDHx) Deployed (notes required)	Optimum	No fixed aisle widths are prescribed. Floor layout is fully customizable to meet customer load types, density and requirements.
Inlet air conditions	1. ASHRAE Class A1 Allowable	Optimum	
Air quality	2. Other (Notes required)	Acceptable	Outside air brought into the building is filtered with a minimum of MERV-A8 (pre-filter) and MERV-A13 filters (Final filters). Filters A-rated in accordance with ASHRAE 52.2 appendix J.
Temperature rise	1. ≥12 Deg C DeltaT	Optimum	
Cabinet blanking of open space	1. Mandatory	Optimum	
CABLING			
Cabling infrastructure pathways	1. Top and Front of rack fed	Optimum	Cabling infrastructure is overhead, with layout custom designed to customer floor layout and requirements.
Overhead Network Infrastructure containment levels	1. 3 Levels (Intra-Pod cabling; Inter-Pod cabling; OOB cabling)	Optimum	3 levels of overhead network cabling trays is the designed standard type. Trays are deployed per customer fit-out requirements.
Fibre Type (if installed)	1. OS2 & OM4	Optimum	OS2 fiber is standard. Can also install alternative cabling plants custom per customer requirements.
Fibre connection presentation (if installed)	1. Interchangeable LC Duplex and MPO	Optimum	LC Duplex and MPO is standard. Can also install alternative cabling plants custom per customer requirements.
CONSIDERATIONS (For information only)	Parameter	Result	Notes
SERVICE			
Replacement PSU Modules	2. Secure storage available	Acceptable	QScale does not stock customer IT system hardware components. Secure storage is available for customers to store their spare parts.
Replacement BBU Modules	2. Secure storage available	Acceptable	QScale does not stock customer IT system hardware components. Secure storage is available for customers to store their spare parts.
Option to monitor PSUs and BBUs	2. No	Acceptable	QScale can facilitate third party local support for these activities.
Remote hands for PSU and BBU replacement or expansion	1. Yes	Optimum	
Remote hands for OCP IT hardware replacement or expansion	1. Yes	Optimum	
EFFICIENCY			
Site Operations Standards	2. Other (Notes required)	Acceptable	Site under construction. Site operations standards are being evaluated.
Site PUE Monitoring	1. Continuously monitored	Optimum	
Site Design PUE	1. <1.2	Optimum	
Site Annualized PUE Current Achievement	2. Other (Notes required)	Acceptable	Will be provided after one year of operation.
Site WUE Monitoring	1. Continuously monitored	Optimum	Site design currently does not consume water for cooling (dry coolers only). In the eventuality that evaporative systems are used in the future, water usage will be monitored continuously.
Site CUE Monitoring	1. Continuously monitored	Optimum	
OPENNESS			
PUE Published	2. Available upon request	Acceptable	

Facility Design Drawings & Files

2. Available to view upon request

Acceptable