

OCP Ready Colo Facility Site Assessment	GLOBAL SWITCH HONG KONG DATA CENTRE			
Self Assessment Status:	COMPLETE-MEETS REQUIREMENTS			
Data Center Location Name	Hong Kong Data Centre			
Data Center Location Address	18 Chun Yat Street, Tseung Kwan O Industrial Estate, New Territories, Hong Kong			
Site Description: IT Technical Space (White Space) Area	44 nos. of Technical Suites among 5 Buildings			
Site Description: Critical IT Power	44 nos. of technical suites (data halls) of IT load range from 1.2MW to 1.383MW to provide total 60.4MW IT load. The entire facility is supported by DRUPS and SUPS systems.			
	Building 1~3 IT, mechanical, building services power system consists of 22 x 2.1MW DRUPS connected to a high voltage IP Bus. Building 4~5 IT power system consists of 18 sets 2x1.2MVA SUPS and divided into 3 groups (each group of 6 sets SUPS) to serve different technical suites.			
Site Description: Network Provider Availability	Global Switch Hong Kong is one the most connected hubs in the city and currently hosts a multitude of global and national telecommunications and cloud provider. With diverse fibre connectivity on the campus, customers will be able to access this connectivity rich environment and will benefit form a wide choice of cloud and network providers as well as direct access to the global IP backbone.			
Site Description: Facility Features				
Site Description: Other Services				
Date Original Assessment is Completed	05/16/2024			
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	2 nos. of loading docks inside campus. One dock equipped with one scissor lifting platform and another dock equipped with two dock levellers to offload crated racks from the delivery vehicle truck into the unloading areas. The crates can then be transported 'threshold free' into the uncrating space.
Delivery pathway, Loading dock to Goods in	2. ≥2.7m (108in) H x ≥1.2m (48in) W unobstructed access and threshold free		Acceptable	Access through the loading area to uncrating area is designed for the wooden crate to be transported on a pallet truck. The loading dock doors have a clear dimension of 2,760mm high, 1,720mm width.
Delivery pathway, Goods in to White space	2. ≥2.3m (90in) H x ≥.9m (36in) W unobstructed access and threshold free		Acceptable	Access from the uncrating area to the technical suites (data halls) is 'threshold free', so the rack can be transported fully populated on its casters into the suites, all access door are sized equal or larger than 2,700mm high, 1,500mm width.
Corridor floor rolling load	1. ≥680kg (1500lb) (6.67kN)		Optimum	The corridors throughout the pathways to technical suites composed of raised floor system of loading capacity of 12.0kN/m2. Smooth movement 680kg (1,500lb) rack on four caster wheels.
Unboxing/pre-staging/storage area floor uniform load	1. ≥1221kg/m2 (250lb/ft2) (11.97kN/m2)		Optimum	Raised floor in unboxing/pre-staging/storage area : 12.0kN/m2.
Unboxing/pre-staging/storage area floor concentrated load	1. ≥680kg (1500lb) (6.67kN)		Optimum	The unboxing/pre-staging/storage area composed of raised floor system of loading capacity of 12.0 kN/m2. Smooth movement 680kg (1,500lb) rack on four caster wheels.
RAMPS				
Gradient	1. Not Applicable - No Ramps Required		Optimum	No ramps installed within the whole delivery path to technical suites (data halls).
Width	1. Not Applicable - No Ramps Required		Optimum	No ramps installed within the whole delivery path to technical suites (data halls).
Landing area	1. Not Applicable - No Ramps Required		Optimum	No ramps installed within the whole delivery path to technical suites (data halls).
Railings	1. Not Applicable - No Railings Required		Optimum	No ramps installed within the whole delivery path to technical suites (data halls).
LIFTS / ELEVATORS				
Weight loading	1. ≥1500kg (3300lbs)		Optimum	2 nos. of 5,000kg Goods Lift are provided near 2 nos. of loading bays with speed of 0.5m/s.
Door height	1. ≥2.4m (96in) Lift /Elevator door opening height (not internal cabin)		Optimum	Industrial type goods lift with 2,800mm clear door opening height and 3,400mm car internal clear height.
Width	1. ≥1.5m (60in) Unobstructed door opening width		Optimum	2,400mm width door opening.
Depth	1. ≥1.5m (60in) Unobstructed cabin depth		Optimum	Lift car cabin: 2,400mm (width) x 3,400mm (deep) x 3,400mm (height internal)
IT TECHNICAL SPACE (WHITE SPACE)				
Floor rolling load	2. ≥459kg (1012lb) (4.5kN) (Notes Required)		Acceptable	4.5kN
Floor uniform load	1. ≥1221kg/m2 (250lb/ft2) (11.97kN/m2)		Optimum	12.0kN/m2
Floor concentrated load	2. ≥459kg (1012lb) (4.5kN) (Notes Required)		Acceptable	4.5kN
Finished floor to ceiling height	2. ≥3.1m (124in)		Acceptable	3,400mm clear height form top level of finished floor slab to the underside of suspended ceiling.
Access floor clearance	1. ≥900mm (36in) (if used for cooling)		Optimum	900mm access floor clearance.
ELECTRICAL				
Number of independent circuits to the rack	1. 2N (A+B)		Optimum	N+N power distribution to the rack from a Distributed Redundant UPS topology.
Maximum circuit capacity	1. 3Φ 32A/230V		Optimum	Single and three phase circuitries can be provided, fed from an N+N under-raised floor or overhead power cables. The rating of the circuitries will be customer determined with multiple 32A outlets.

Circuit voltage	1. 400/230 VAC nominal	Optimum	Nominal 220V a.c. for single phase, 380V a.c. for 3 phase.
Circuit frequency	1. 47-63 Hz	Optimum	Nominal 50Hz.
Power receptacle / WIP Type	1. IEC60309 532R6W	Optimum	IEC 60309.
Circuit receptacle location	2. Underfloor	Acceptable	Under raised floor or above rack subject to customer requirement.
Upstream UPS options	2. UPS only feed available	Acceptable	Basis of design is UPS backed IT power supply via UPS of type DRUPS and SUPS.
Rack-based batteries permitted	1. Allowed	Optimum	Local battery storage in the IT racks is permitted but their uses need to be declared for the purpose of insurance.
Generator load acceptance time	1. <60 seconds	Optimum	Building 1~3: DRUPS keeps on running. Building 4~5: Generator Load Acceptance Time is 47 ~ 74 sec.
COOLING			
Rack airflow direction	1. Front to Back	Optimum	Front to back.
Air containment methods	1. Hot aisle containment or rack chimney	Optimum	Hot aisle containment is the basis of the system design.
Maximum rack density	1. ≥12kw	Optimum	>12kW. Flooded room cooling so lesser constraints on rack load.
Minimum cold aisle width	2. ≥1200mm (48in)	Acceptable	Minimum Cold Aisle width of 1,200mm.
Minimum free width cold aisle (Inside cage)	1. ≥1200mm (48in)	Optimum	1,200mm can be provided.
Minimum hot aisle width	1. ≥1200mm (48in)	Optimum	Hot aisle containment is the basis of design and the standard width is 1,200mm to match with the ceiling return grilles arrangement.
Inlet air conditions	1. ASHRAE Class A1 Allowable	Optimum	IT rack inlet air condition at cold aisle area matches with ASHRAE recommended (suitable for Classes A1 to A4) equipment environment specification for air cooling.
Air quality	1. EN 779 G4 and F7 filtering & Gas particulate monitoring to the ANSI/ISA 74.04-1985 G severity levels	Optimum	Primary Air Unit PAU are provided on an N+1 redundancy basis to maintain pressure control and humidity. Basis of design for PAU filtering is G3 and F7. Additional filtration provided in CRAH unit G4 filter on the return air path.
Temperature rise	1. ≥12 Deg C DeltaT	Optimum	12 Deg C DeltaT.
Cabinet blanking of open space	1. Mandatory	Optimum	Mandatory that customers provided blanking plates within their racks or where racks are not provided within a contained aisle.
CABLING			
Cabling infrastructure pathways	1. Top and Front of rack fed	Optimum	Top entry and front presentation for network connectivity.
Overhead Network Infrastructure containment levels	1. 3 Levels (Intra-Pod cabling; Inter-Pod cabling; OOB cabling)	Optimum	The clear height of the technical space is 3,400mm, which should accommodate 3 levels cabling; this is subject to customer requirements.
Fibre Type (if installed)	2. Installed Per Customer Requirements	Acceptable	Dependent on customer requirements.
Fibre connection presentation (if installed)	2. Installed Per Customer Requirements	Acceptable	Dependent on customer requirements.
CONSIDERATIONS (For information only)	Parameter	Result	Notes
SERVICE			
Replacement PSU Modules	2. Secure storage available	Acceptable	This service is not currently provided and would be dependant upon the ownership of the racks. However, a remote hands service could be agreed.
Replacement BBU Modules	2. Secure storage available	Acceptable	This service is not currently provided and would be dependant upon the ownership of the racks. However, a remote hands service could be agreed.
Option to monitor PSUs and BBUs	2. No	Acceptable	This service is not currently provided and would be dependant upon the ownership of the racks. However, a remote hands service could be agreed.
Remote hands for PSU and BBU replacement or expansion	1. Yes	Optimum	This service is not currently provided and would be dependant upon the ownership of the racks. However, a remote hands service could be agreed.
Remote hands for OCP IT hardware replacement or expansion	1. Yes	Optimum	This service is not currently provided and would be dependant upon the ownership of the racks. However, a remote hands service could be agreed.
EFFICIENCY			
Site Operations Standards	2. Other (Notes required)	Acceptable	Global Switch follow internal operational standards and have a Critical Environments Programme in place. Site is certified with ISO 9001, 14001, 27001, 45001, 50001.
Site PUE Monitoring	1. Continuously monitored	Optimum	The Technical Suite PUE will be continuously monitored using EPMS with power meters at the supply side of PDU.
Site Design PUE	2. <1.5	Acceptable	The annualised design PUE is 1.30 @ 100% IT load.
Site Annualized PUE Current Achievement	2. <1.5	Acceptable	The predicted annualised PUE is 1.30 @100% IT load, this metric score to be updated as per the site load ramping to higher percentage.
Site WUE Monitoring	1. Continuously monitored	Optimum	WUE to be monitored via water meters that supply the facility. The consumption data will be continuously monitored by the on-site Facility Monitoring System FMS to generate WUE value.

Site CUE Monitoring	2. Periodically measured	Acceptable	CUE will be measured periodically via EPMS and data of facility carbon usage for generating CUE value.
OPENNESS			
PUE Published	2. Available upon request	Acceptable	The PUE information can be available upon request with prior consent.
Facility Design Drawings & Files	2. Available to view upon request	Acceptable	As Built drawings are available for customers and prospective customers to view upon request with prior consent.