

PROGENET DATA CENTER

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OVERVIEW

OF THE PROGENET DATA CENTER

Progenet is pleased to announce the 1st Cloud Data Center in Malaysia. Ideally located in Selangor, it is well connected to the rest of the Klang Valley via major expressways such as NKVE, LDP, DUKE highway, making it accessible to all.

The Progenet Data Center, being truly carrier neutral, can offer high quality, scalable data center solutions, customised to fit customer requirements with net usable space of 7,000sqft per floor.



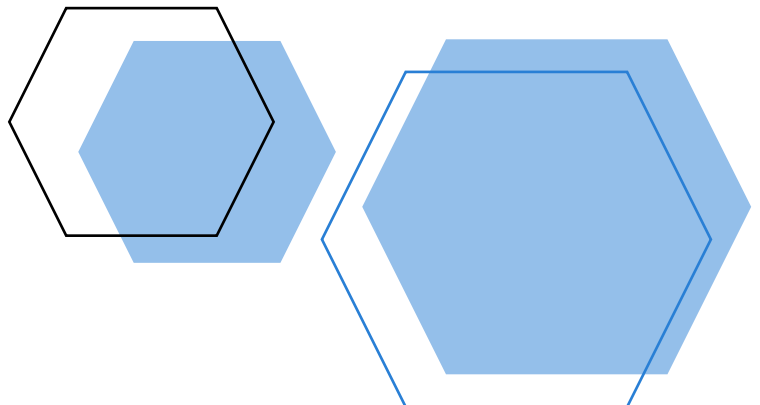
MORE ABOUT THE DATA CENTER

The Progenet Data Center, being truly carrier neutral, can offer high quality, scalable data center solutions, customised to fit customer requirements with net usable space of 7,000sqft per floor.

Our Data center can provide a minimum of N+1 configuration and concurrent maintainability for both critical power and cooling systems which is similar to international Tier 3 standards.

Our Data Center will be able to support multiple clusters of high end and hi-tech data center facilities. The facility is designed with high end infrastructure to support the critical data center operations in event of any emergencies.

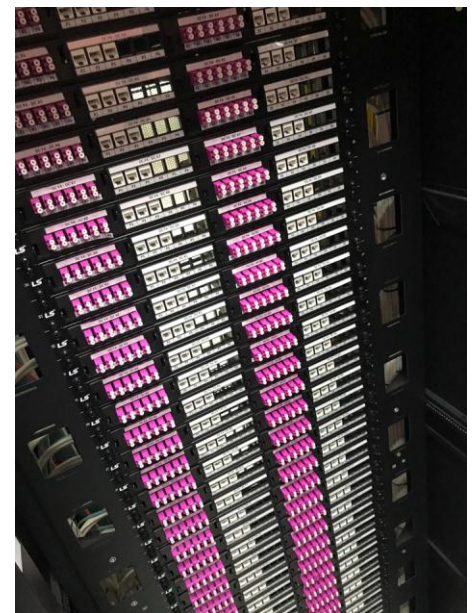
Having a single point of entry, 24X7 hours security facilities with controlled access & surveillance security cameras as well as perimeter hardened wall structure, the data center will be security tight with zero tolerance for security breaches.

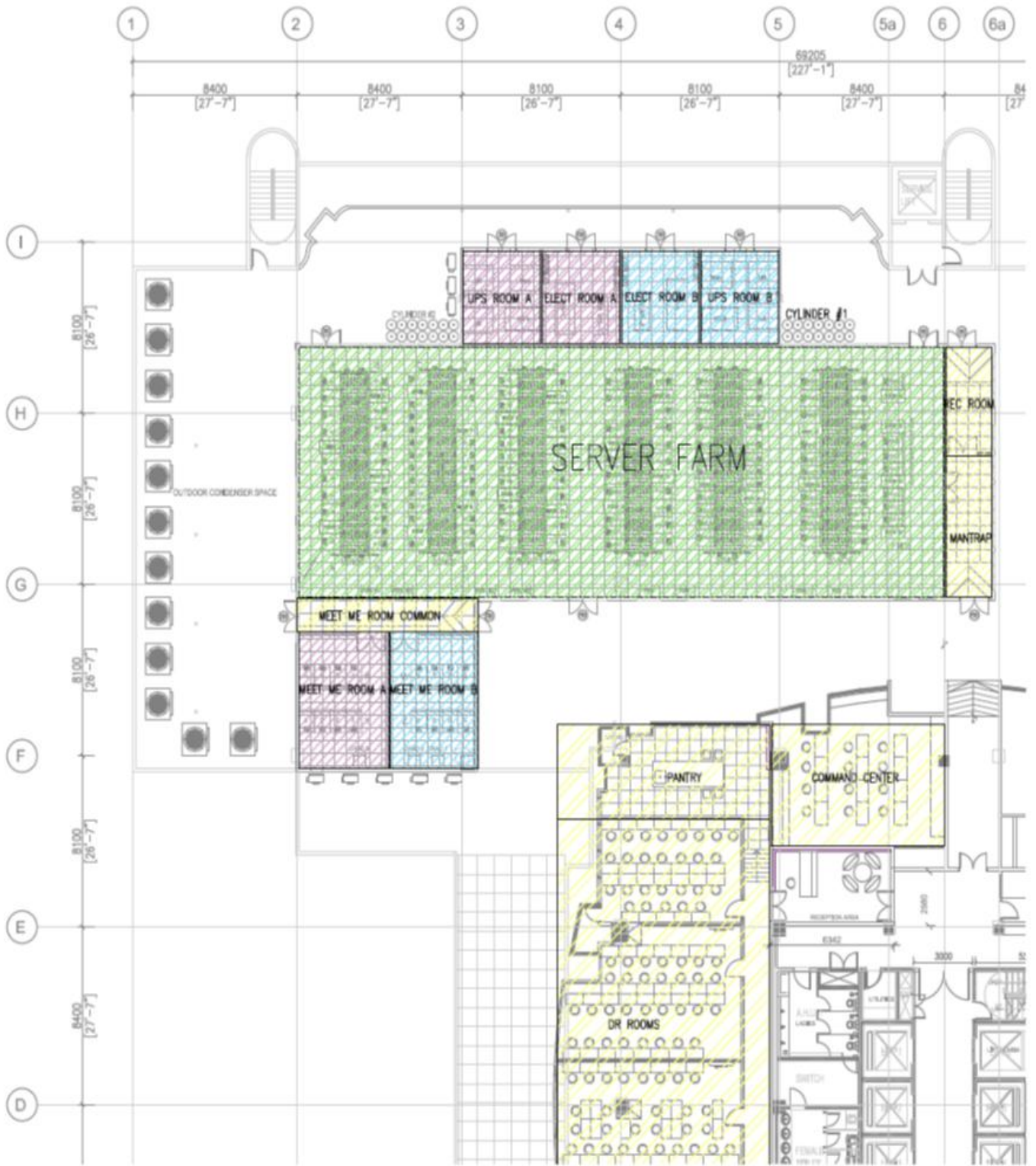


KEY FEATURES

OF THE DATA CENTER INFRASTRUCTURE

- Vertiv UPS with Hot swappable Modular Architecture with high double conversion power efficiency, compact footprint, distributed Intelligence allowing no single point of failure for full redundancy
- Vertiv SPM Power Distribution Unit with breakers and Branch Circuit Monitoring for each individual rack for real time power consumption
- Vertiv In Row Precision Cooling unit with Green Technology features such as EC fans for modulation of speed and airflow, digital scroll compressor to improve data center PUE. Propriety iCOM control system are in place to monitor and control performance.
- Vertiv Containment system to optimize energy consumption by separating hot & cold aisle
- Comprehensive Fire Protection system with a combination of Very Early Smoke Detection System and Active Fire Gas System IG 541 which has zero green house effect.
- Leader in DCIM Magic Quadrant, Nlyte Data Center Infrastructure Manager (DCIM) is utilised in the Progenet Data Center to efficiently operate the data center, reduce resource costs (assets, space and energy), and increase data center personnel efficiency.
- Suprema, a Global Leader in Biometrics and Security Technology, are installed at critical points in the Data Center using highly secured Facial Recognition and Fingerprint Access system
- The Data Center uses LS Simple Data Cabling System, a leading player in the global cable industry. 2 dedicated pathways for redundancy are connected to every Rack, which comes equipped with 2 X 6 core Multi mode OM4 Fiber connection and 2 X 3 port Ultra Slim Cat6A connectivity to support up to 100m for 100G Network Uplink Speed.
- Comprehensive Electrical System with multiple paths and switchover, allowing for concurrent maintainability





LAYOUT

OF DATA CENTER

SPECIFICATIONS

Building Information	
Address	Menara Lien Hoe, Tropicana, 47800 Petaling Jaya, Selangor, Malaysia
Building Information	Single block 18-storey commercial building and Single Block 5-storey parking levels.
	The building consists of 1 data centre floor and 2 sub-floors for the installation of electrical facilities and power plants.
Power Supplies	11kV HT power feed from TNB power grid
Incoming power	Diverse A&B TNB supply to data center housed in separated compartment
Power Capacity	Dual 1.25 MVA Dedicated Transformer
Total Transformer Capacity	2.5MVA
Telecommunication Manhole	Diverse fibre trunking from MDF Room to the 2 Separated Dedicated Meet Me Rooms for Telcos
Telecommunication	Carrier Neutral
Network Capability	Able to support up to 100G Speed via Dual Fiber pathway and Cat6A pathway for each rack
Antenna, Wireless or Microwave Equipment Space at Rooftop	Available
Site Specification	
Data Center Space @ 4th Floor	7,000 sq ft
Ground Floor Space	1,700 sq ft
Building Floor Information	
Floor Height	3.8 meter, slab to slab
Floor Load	5 KN per square meter
Data Centre Specification	
Critical Load Power Density	5KW Per rack
Cooling Density	120 watts per sq ft

Rack Arrangement/ Space Configuration	Hot aisle and cold aisle configuration:
	Cold Aisle Spacing: 1,200mm
	Hot Aisle Spacing: 1,000mm
Critical Load Power Distribution	1 x primary and 1 x redundant final sub-circuits from separate PDU within the data centre
Lighting	500lux light density at the raised floor level
Raised Floor System	
Gross Raised Floor Area Per Floor	6,000 square feet
Usable Raised Floor Area	5,500 square feet
RF Height	300mm raised floor height
RF Type	HPL Steel Cement rigid grid system
Concentrated Load	4.5 kN
Uniform Load	12 K-N per square meter
Underfloor Insulation	Thermal isolation Trocellin polyethylene foam
Ceiling	Aluminium Composite Ceiling Panel for data centre areas
Partitions	Light Weight Brick Wall for each dedicated fire zone
Cabling System	Two Parallel paths of overhead Fiber Runner for fiber cabling system & infrastructure and cable basket for UTP cabling system & infrastructure
Uninterruptible Power Supply (UPS) System	
UPS System	True-online Double Conversion UPS with efficiency up to 99.1% housed in Separated compartments
Static UPS Capacity	2 x 600kVA Modular UPS
Total Static UPS Capacity	1200kVA
UPS Battery Autonomy	10 minutes at full load
UPS Redundancy	2N+1 configuration
UPS External Bypass	Provided

Clean Earth	Clean earth point is provided to each rack location under the raised floor which is linked to a dedicated Clean earth Pit located at ground floor
Power Distribution Unit (PDU)	
PDU Configuration	Each PDU receives one 415Vac protected power supply from 2 different UPS output panel within the data centre.
	Each PDU is connected to the Main UPS SB with dedicated Digital Power Meter, KWH Meter. The power meters provide the electrical consumption reading of the PDU through the KWH meter or digital meter via Data Center Infrastructure Management System (DCIM) interface
PDU Capacity	150KVA
Circuit per Cabinet	For 2N configuration
	1 x primary and 1x redundant final circuit from separate PDU.
Circuit Protection	Each final circuit is individually protected by a MCB at PDU.
Circuit Breaker Sizes	Single phase 20A, 32A single phase and three phase power supplies are available from the PDU. Breakers are hot swappable
AC voltage at Cabinet Level	240V/ 50 Hz , 415V/ 50 Hz
Emergency Power Generator (EPG)	650KVA backup diesel generator
Fuel Tank	External fuel tanks able to support EPG plant for 12 hours at full load
Supported Services	Data centre, CRACs, chillers, lighting and general services within data centre areas
Cooling System	Air cooled
CRAC System	Row based Computer room Inverter type air condition unit
CRAC Redundancy	Row Based Cooling system in the same farm area are configured in N + 1 and equipped with an automatic changeover controller
CRAC Power Redundancy	Each CRAC is connected to two power sources from different ACMV panel via Automatic Transfer Switch (ATS)
CRAC System Support	CRAC system is supported by EPG Plant

Temperature Control	22 Degree +/- 3°
Humidity Control	50 RH +/- 10 RH
Containment	Cold aisle containment is available for all racking area c/w sky light ceiling
Water Leakage Detection	Water leak detection system is installed in data centre areas
Leak Detection Type	Resistive leak tape (cable) monitoring leakage at any point along the perimeter of the data centre area
Fire Detection and Suppression System	
Fire Suppression	Inert Gas IG-541 fire suppression system is installed in the data centre areas
IG-541	IG-541 Gas suppression system is installed above and under the raised access floor in the data centre areas
Fire Alarm and Detection System	Two stages of alarms are implemented for heat and smoke detection system
Very Early Smoke Detection Apparatus (VESDA) System	VESDA system is implemented in the entire data center area and operated independently from the fire alarm system. VESDA is designed to provide 2 stage alarm.
Security	24 x 7 on site security
	Multi layered security controls
	Facial and Biometric access control system at all data centre entrances and exits
	24 x 7 CCTV monitoring backed by digital recordings up to 90 days storage at multiple sites
Data Center Infrastructure Management	Data Center Infrastructure Management System (DCIM) to monitor and control all facilities within data centre
	– Automatic control and monitoring of the environmental control system
	– Monitoring of high tension supplies, UPS, Generator, Switchboards, CRAC, Fire Safety, Room temperature & humidity, water leaks, early smoke detection
On Site Manned Support	24 x 7 Service Operation Centre with Display wall to monitor operation of data center

