

# Global Hub - Singapore

New Tech Park: 6th floor, 151 Lorong Chuan, 556741, Singapore



## General Information



Epsilon Global Hubs Singapore is a tier 3 co-location facility offering 10,000sq foot of datacenter space; capable of housing 300 racks with a further 10,000sq foot assigned for NOC, storage, staging and office facilities; all designed to support each client's regional needs to a high standard with built in scalability.

A range of rack spaces are available from

half racks to full racks in various dimensions to meet different customer demands. The technical areas allow for an average power dissipation of 2.5 kW per rack, with future plans to upgrade to over 4 kW as required. The facility is serviced with dual incoming 2000A power feeds from local substations and backed up by 4 x 400 KVA in redundant formation further supported by dual diesel generators.

## Air Conditioning

The air conditioning infrastructure is designed in an N+1 redundant cooling configuration for all critical areas. The air room conditioning from a temperature and humidity point of view is set to remain at 22°C constant with a relative inlet humidity of 50 per cent.

13 sets of Liebert floor-standing, down-throw air discharge CRAC units are used to serve all server equipment. A comprehensive water leak detection system is in place below

all these CRAUs ensuring early detection which reports in to the EMS terminal based in the NOC. There is also a redundant chiller system in place including 2 sets of 100RT air-cooled chillers with 3 sets of chilled water pumps (2 Duty and 1 Standby) to support all the data centre's CRAUs and FCUs.



## Power



There are two incoming power feeders with two sets of distribution paths; from source all the way to final circuits at the racks.

These feeds run off a dual bus topology to maximise redundancy, ensuring maximum uptime. This design also allows concurrent maintenance without power disruption. The main power is also backed-up by a 4 x 400 kVA UPS system and Digital Electronic Power metering provisions are installed at all main

switchboards.

Power allocation to the racks is delivered in pre agreed quotas as units of KVA with 1.5Kw minimum. Random power monitoring across the datacenter takes place to ensure that customer power allocation is within acceptable units. This method of control also serves to efficiently monitor overall power consumption at the datacenter and ensure load is distributed evenly to all areas.

*Epsilon Global Hubs - your Gateway to the Carrier world!*

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If you wish to find out more about Epsilon's services and solutions or have any further queries please do not hesitate contact your Epsilon Business Manager or the Epsilon Sales Team.  
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## Generator



The site backup power is provided by two sets of 1,000 kVA generators, capable of supporting all the UPS and critical loads. The fuel tank has a capacity of 700 litres, which is also linked to the main building fuel storage tank. Agreements are in place to take further fuel from the building supply during lengthy power outages to ensure continuous generator power.

Auto Transfer Switches (ATS) are installed which automatically manage switching between main power to backup power if required.

## Floor and UPS

The co-location area has a heavy duty grade anti-vinyl-static raised access floor with cavity floor height of 350 mm providing plenty of space for under floor infrastructure with a loading capability of 12kN. The floor air vents are made of non-dampered aluminum floor grilles for efficient air circulation.

The main power supply is backed up with a 4 x 400 kVA UPS system in an N+1 format. The UPS system provides the site with total power autonomy of 15 minutes under full load.



## Cabling and MMR



All cross connections between cabinets take place in the secure Meet-Me-Room to which only Epsilon technicians have access to and a structured cabling policy is in place to connect the racks to the MMR.

Structured cabling for copper E1/DS3 and 100Mb Ethernet terminate on UTP and CAT6 cabling is used for 1000Mb Ethernet connections. MM and SM fiber is run in

overhead fiber guides to MMR completely separated from the copper which is laid underneath the floor.

There is a dual entrance into MMR for all cable runs and cross connects in the MMR are provided within 2 working days.

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## Security and Access



Epsilon Global Hubs Singapore is a 24x7 manned co-location facility with the Field Manager and Security team present during working hours from 8am to 6pm. During out of office hours access is controlled by the NOC (Network Operations Centre).

There is barrier controlled vehicle access and pedestrian man traps in place. All visitors are required to go through a two level verification

process for data center access, with registration needed through a security port and then authentication verified in the NOC. The site also has Multiple CCTV cameras (interior and exterior) with one month archiving. These are placed in all critical areas and access points. Intruder alarms are also active in all areas coinciding with external infra-red barriers.

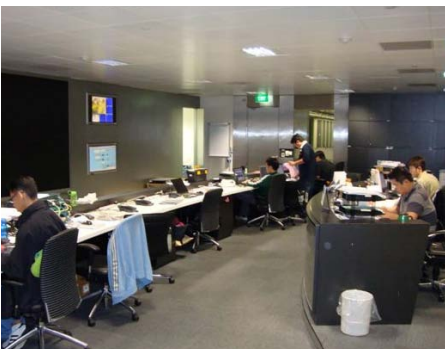
## Fire Detection and Suppression

There is a FM200 type gas based Fire Suppression System in place as primary protection for critical areas such as the main data centre, UPS room and switch room. A Pre-Action (Dry Sprinkler) System is installed for secondary protection covering the entire data centre space including all corridors and walkways.

The site also has constant environmental monitoring with an alarm system for DC support systems. Fire rated partition walls are in place that provide a 1-2hour break in an intensive emergency situation.



## Technical Support



Epsilon provides the following support services on site for its co-location customers free of charge for a limited amount of hours:

1. Pressing reset or power buttons (power cycling) on co-located servers and equipment
2. Provide customers with results of indicator readings of co-located servers and equipment
3. Observe and describe equipment behaviour based on ocular inspection
4. Checking, pulling and plugging of pre-

installed cables to different ports in patch panels

5. Performing server and /or equipment "ping test"
6. Pull out/reinsert a cards

Any additional or different remote hands support requested on site via the Epsilon NOC will be charged at the rates specified in the service order form.

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