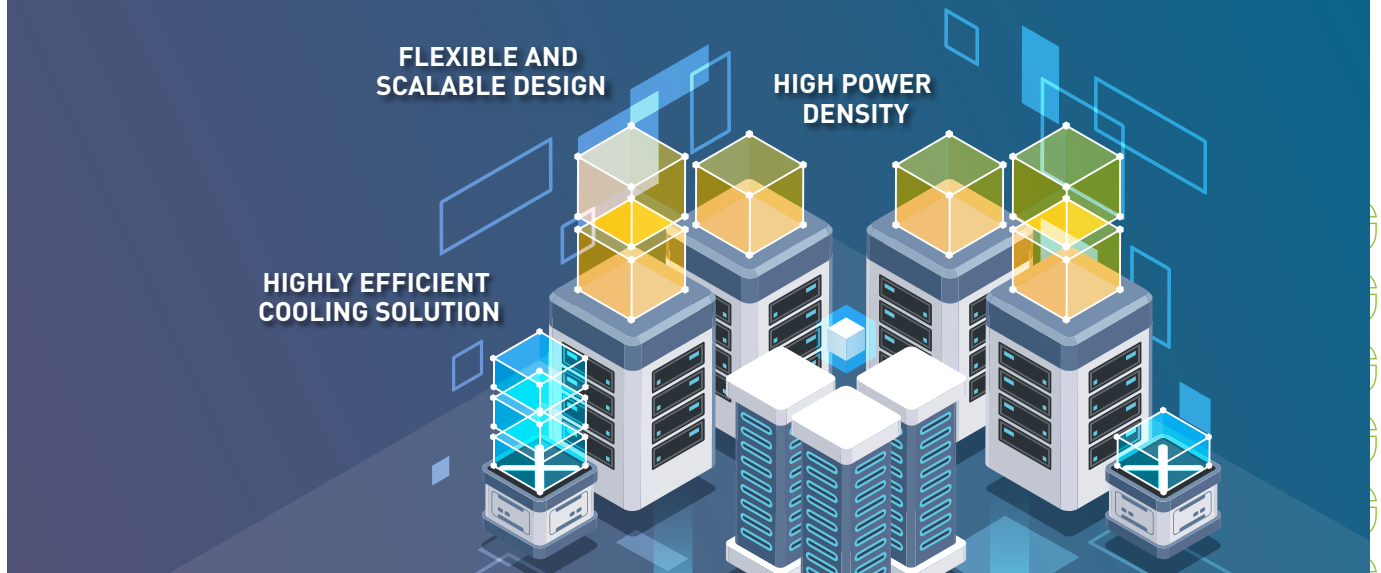


Accelerate business performance with

# Hyperscale Data Centre



HELLO CHANGE  
HELLO CHANGE

## THE NEXT GENERATION DATA CENTRE

Modern IT workloads are increasingly growing in complexity from the demands of today's highly digitalised world. To meet these challenges, enterprises are turning to multi-cloud strategies, and rolling out versatile converged infrastructure and powerful high-performance computing (HPC) systems to drive new applications and capabilities.

Hyperscale data centres are built with these requirements in mind and pick up from the power and scalability limitations of traditional data centres. With inherent support for high-density deployments and the latest energy-efficient designs, hyperscale data centres let enterprises field next-gen workloads with confidence.

## ADVANTAGES OF HYPERSCALE DATA CENTRE



### HIGH SCALABILITY

Rapidly deploy and manage growing infrastructure needs for future growth.



### HIGH COOLING EFFICIENCY

Use innovative and efficient cooling technologies for optimal airflow.



### NEXT-GEN COMPUTING

Support dense HPC or converged infrastructure with higher kilowatts per rack without additional cooling systems.



“ A state-of-the-art facility designed for high energy efficiency and scalability ”

## WHY STARHUB HYPERSCALE DATA CENTRE @ LOYANG

StarHub becomes AirTrunk’s first partner of its new hyperscale data centre campus (AirTrunk SGP1) at Loyang, the largest carrier-neutral data centre in Singapore. The campus is strategically close to Changi Cable Landing Station – Singapore’s largest cable landing station, and the terminal for several major submarine cables connecting Singapore to other parts of the world.

With the cutting-edge hyperscale facilities within the campus, StarHub will deliver data centre colocation services from the dedicated StarHub Hyperscale Data Centre @ Loyang (SHDC@Loyang) facility. This partnership allows StarHub’s customers to meet their requirements for high energy efficiency and scalability. By enabling enterprise digitalisation, 5G innovations and edge computing, enterprises can support the demands of mobile data usage, data processing and storage demand in today’s fast paced business world.

Usage of data centre energy is a key consideration when it comes to optimising energy efficiency and reducing carbon emissions. On this front, SHDC@Loyang was designed to deliver high energy efficiency using innovative and highly efficient cooling systems. The facility has a low design PUE of 1.3, which is significantly lower than traditional data centres in Singapore.

Built to the industry’s highest certified standards, this state-of-the-art hyperscale data centre is expected to meet the requirements for BCA-IMDA Green Mark Platinum certification and Threat and Vulnerability Risk Assessment (TVRA) as set by the Monetary Authority of Singapore. It is also expected to meet the stringent security requirements including ISO 27001 and PCI-DSS.



## SPECIFICATIONS

### POWER

- Dual incoming power feeds with N+N redundancy and diverse path
- Support up to 24kW per rack without additional cooling systems
- Diesel generators with 24-hour back up time
- Flexible power distribution architecture based on busways
- Design PUE of 1.3

### COOLING

- N+2 Indirect Evaporative Cooling (IEC) units
- Evaporative process water storage tanks sized for 24-hour water storage on-site
- Hot-aisle containment with supply air from 2 sides of data halls

### FIRE SUPPRESSION SYSTEM

- Individual fire detection zones
- Early smoke detection system
- Pre-action sprinkler system
- Smoke and heat detection sensors
- Fire-rated doors and partitions

### SECURITY

- Threat and Vulnerability Risk Assessment (TVRA)
- Anti-climb perimeter fencing
- Two-factor verification for data hall access
- Turnstiles to prevent tailgating
- 24 x 7 IP cameras monitoring of internal and external areas

### CONNECTIVITY

- Carrier Neutral
- Access to global Tier 1 carriers
- Close physical proximity to Changi Cable Landing Station
- Diverse lead-in pipes into the building
- Redundant Meet Me Rooms (MMR)

## BENEFITS



### POWER EFFICIENCY

Low Power Usage Effectiveness (PUE) design and use of Indirect Evaporative Cooling (IEC) reduces power usage for a reduced impact on the environment.



### ONE-STOP MANAGED SERVICES

End-to-end managed services from a single provider for your Internet and colocation needs, with 24-hour remote hands support.



### FLEXIBILITY

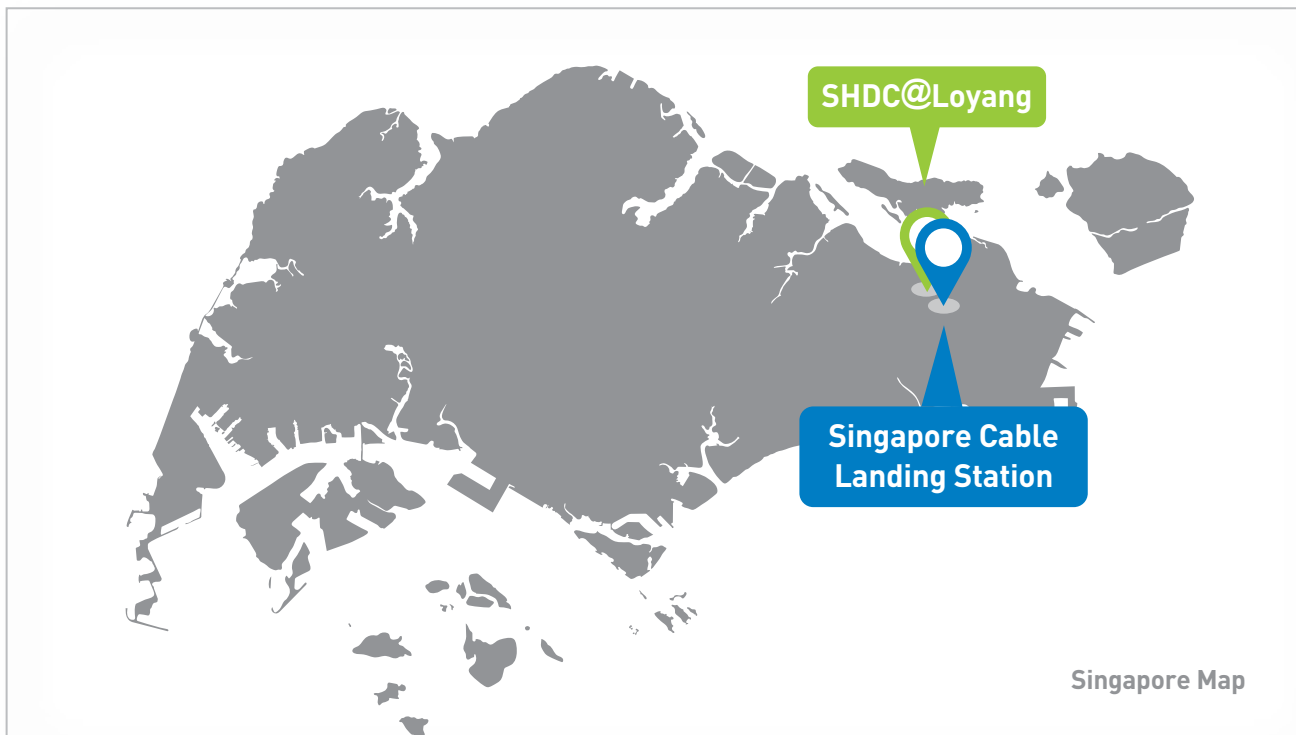
Deploy dense high-performance computing (HPC) and converged infrastructure systems from day one. Request additional power capacity as needed with rapid turnaround time.



### INTERCONNECTED ECOSYSTEM

Direct connectivity to multiple networks and Tier-1 public cloud providers within the connected campus, and leverage StarHub's networks for secure and direct connections to your offices islandwide.

## LOCATION: LOYANG, SINGAPORE



### OVERVIEW

- ◇ A 5-storey building within a connected campus
- ◇ 15MW of critical power capacity
- ◇ Up to 2,000 cabinets
- ◇ Floor loading of 15kN/m<sup>2</sup>
- ◇ Data halls cooled by Indirect Evaporative Cooling (IEC) with no raised floors

### NEARBY AMENITIES

- ◇ 35 mins to CBD
- ◇ 15 mins to Changi Airport
- ◇ 15 mins to nearest Fire Station



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