USDC TECHNOLOGY
Smart Data Center

USDC Technology

New generation data center infrastructure

Contents

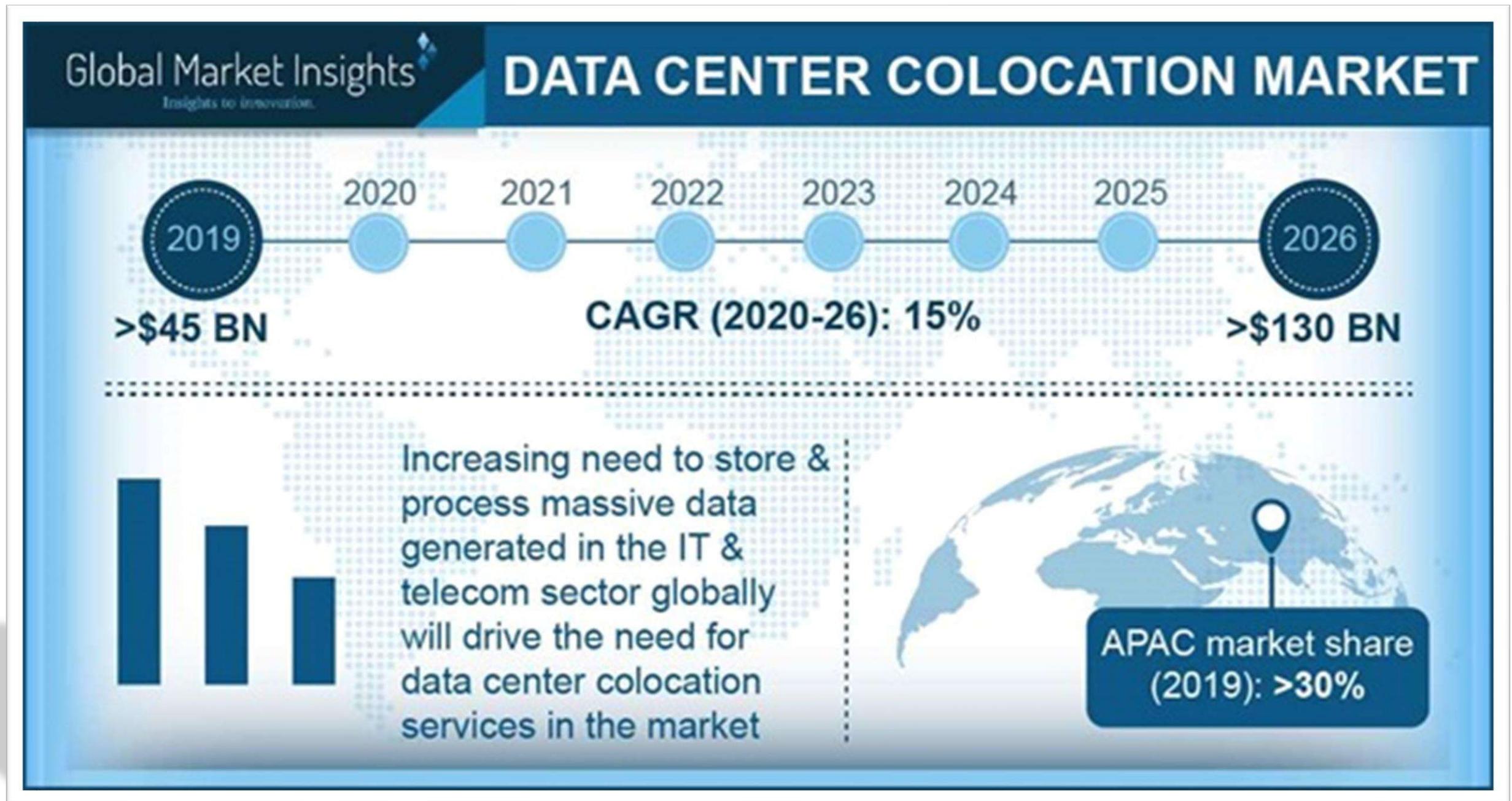# Data Center Colocation Market

Market size was valued at over **USD 45 billion in 2019** and is expected to grow at a **CAGR of 15% from 2020 to 2026**

A rise in the number of SMEs adopting advanced technologies to sustain in the growing competition will propel the market expansion.
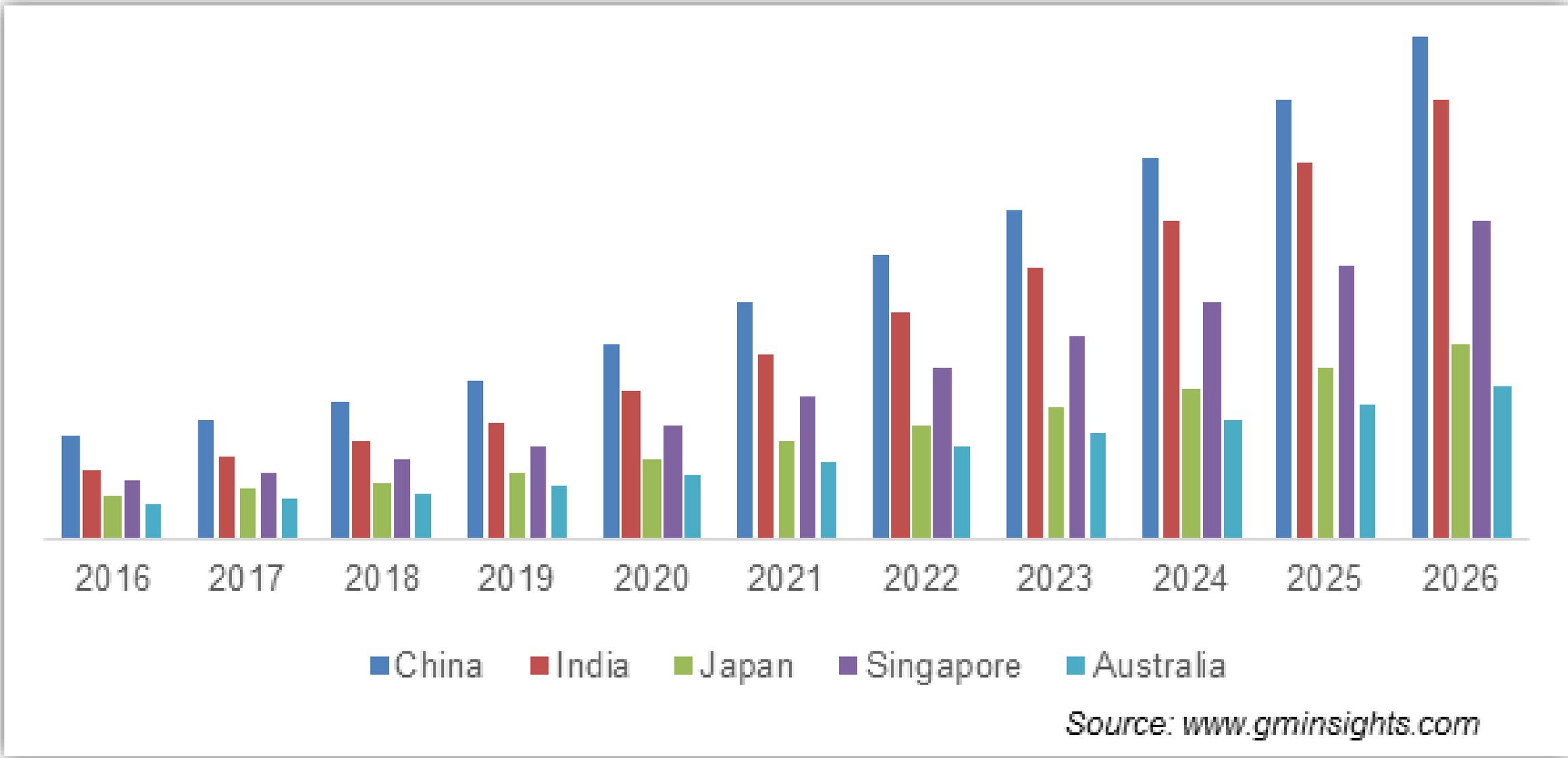
Large amount of data generated by advanced technologies require expansive data center infrastructure.

The coronavirus pandemic has pushed the internet usage to 70%, straining the internet's underlying infrastructure.

Data Center Colocation Market

Asia Pacific Data Center Colocation Market

Rising popularity of social media platforms in several countries in APAC region will stimulate the market progression

Southeast Asian Market in Focus

Southeast Asian market will be the fastest growing region in the world in the next five years, which is higher than other markets.

Tech giants - Google, Chinese e-commerce giant Alibaba, and Amazon Web Services have been setting up data centers in Southeast Asia in recent years.

Singapore's colocation data center growth rate ranks third in the world, Malaysia ranked 18th in 2019. In the Asia-Pacific region, the Malaysian market ranks fourth, followed by Thailand (7th), Vietnam (9th) and Indonesia (11th).
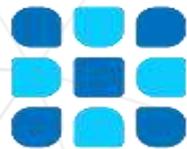
The Development of Data Centers in Vietnam

- ❏ Vietnam ranks in the top of the Southeast Asian data center market with optimistic prospects thanks to the growing demand for digital transformation. The large number of data centers aims to meet the inevitable rise of AI, big data, IoT, and other technologies in Industry 4.0.

- ❏ The Vietnam local market was valued at $165 billion in 2018 and is forecast to reach **$294 billion** in 2024.

- ❏ With the connectivity afforded by this facility, local and global brands will now have access to a world-class data center facility to connect the Southeast Asia region.

- ❏ The pandemic has accelerated digital transformation among companies and business. This has boosted growth for data center demand at a much higher pace than we have expected.

- ❏ Cloud computing service providers are developing data centers across the area aiming to meet the data storage demand.

The Development of Data Centers in Vietnam

❑ The Vietnam population will drive the growth of IT usage, as well as the expansion of e-commerce and digital banking. This will become a huge potential for the development of colocation data center rental companies.

❑ Currently, Vietnam has 27 date centers with 270,000 servers operated by 11 domestic companies who provide services at fairly affordable prices.

- ✓ **Largest data center operators**: VDC, FPT Telecom, GDS, Telehouse, HANEL-CSF

- ✓ **Top data center ecology**: Telehouse, VNTT, FPT Telecom, FPT Data Center, VDC

- ✓ **Service providers**: FPT Telecom, PCCW Solutions, Viettel, VNPT, VTN
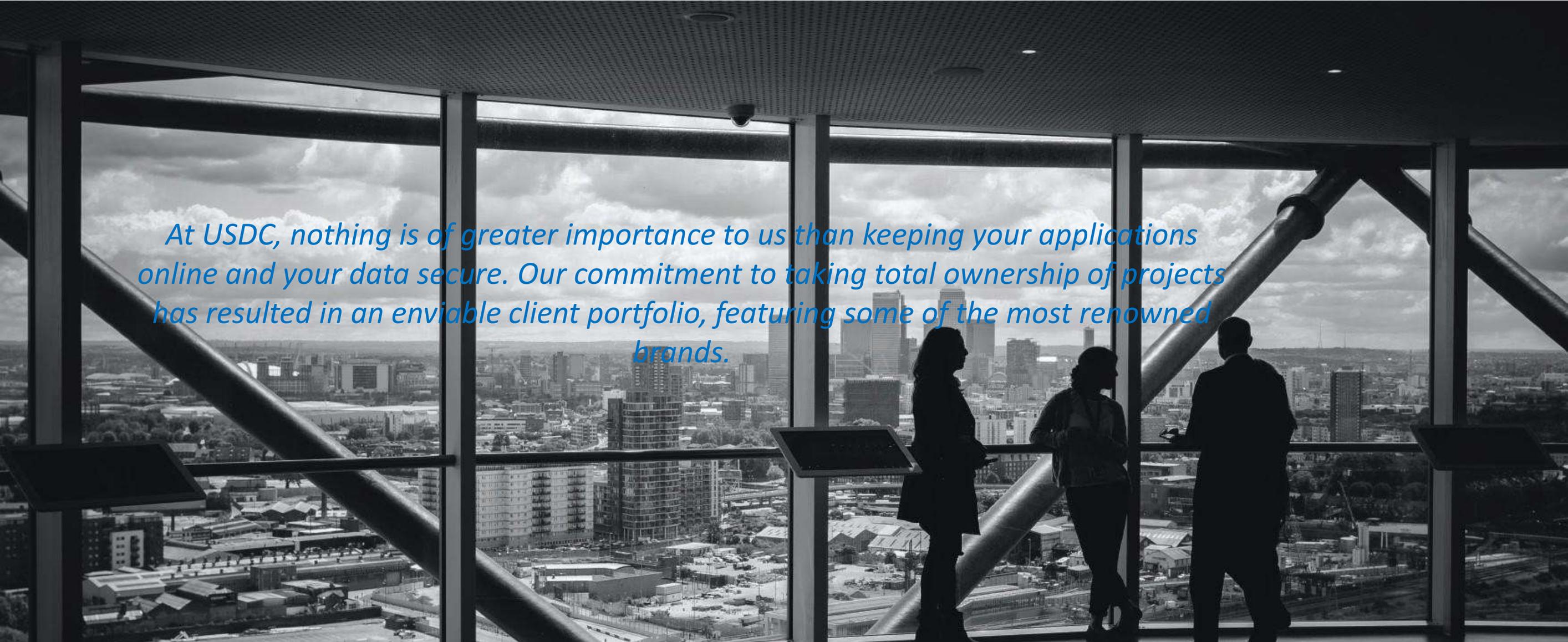
Our Data Centers & Services

About USDC Tech

"We are a professional and leading company in provide Smart Data Center Technology and Services in Vietnam and the Region."

At USDC, nothing is of greater importance to us than keeping your applications online and your data secure. Our commitment to taking total ownership of projects has resulted in an enviable client portfolio, featuring some of the most renowned brands.

Why USDC Technology?

Enthusiastic Consulting

With in-depth knowledge and rich experience in Data Center, Cloud Computing, and the support of strategic partners, USDC Technology are confident to bring practical IT infrastructure solutions to customers.

Optimal Cost Solution

Optimize energy, resources, personnel, operating costs while maximizing the safety and automation of the system based on the application of technology and solutions of USDC Technology.
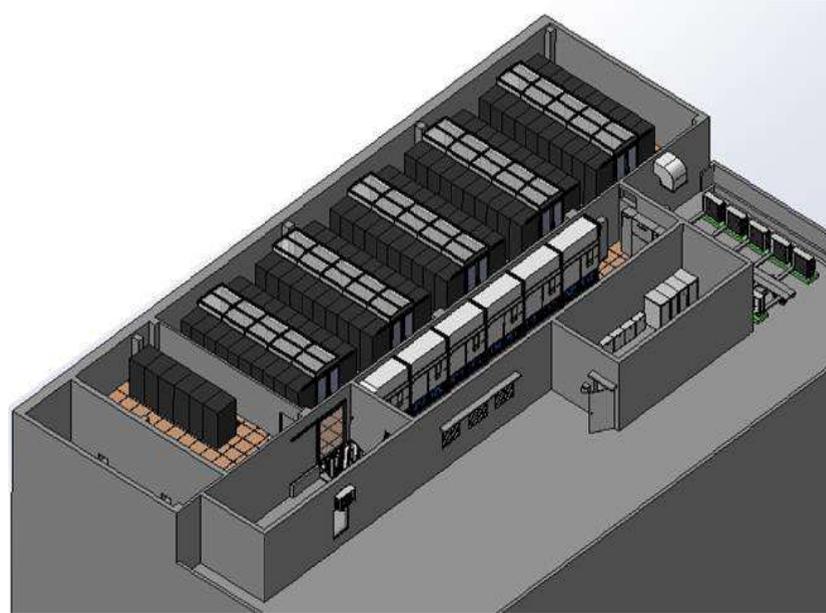
Professional Support

USDC Technology invests in building the most proactive interactive support system to promptly overcome risks, troubleshoot problems, and gain trust from customers.

Our Data Centers

Available soon

Modular Data Center: *Saigon Hi-Tech Park, District 9, HCM City, Vietnam*

Location	Mobile
Computer Room Area	30 m2
Rack Number	5~6 Racks
Critical IT Load	20 kW

USDC Smart Data Center: *Saigon Hi-Tech Park, District 9, HCM City, Vietnam*

Opening	12/2020
Computer Room Area	300 m2
Rack Number	106 Racks
Critical IT Load	300 kW

On-going Data Center: Long Thanh My Ward, District 2, HCM City, Vietnam

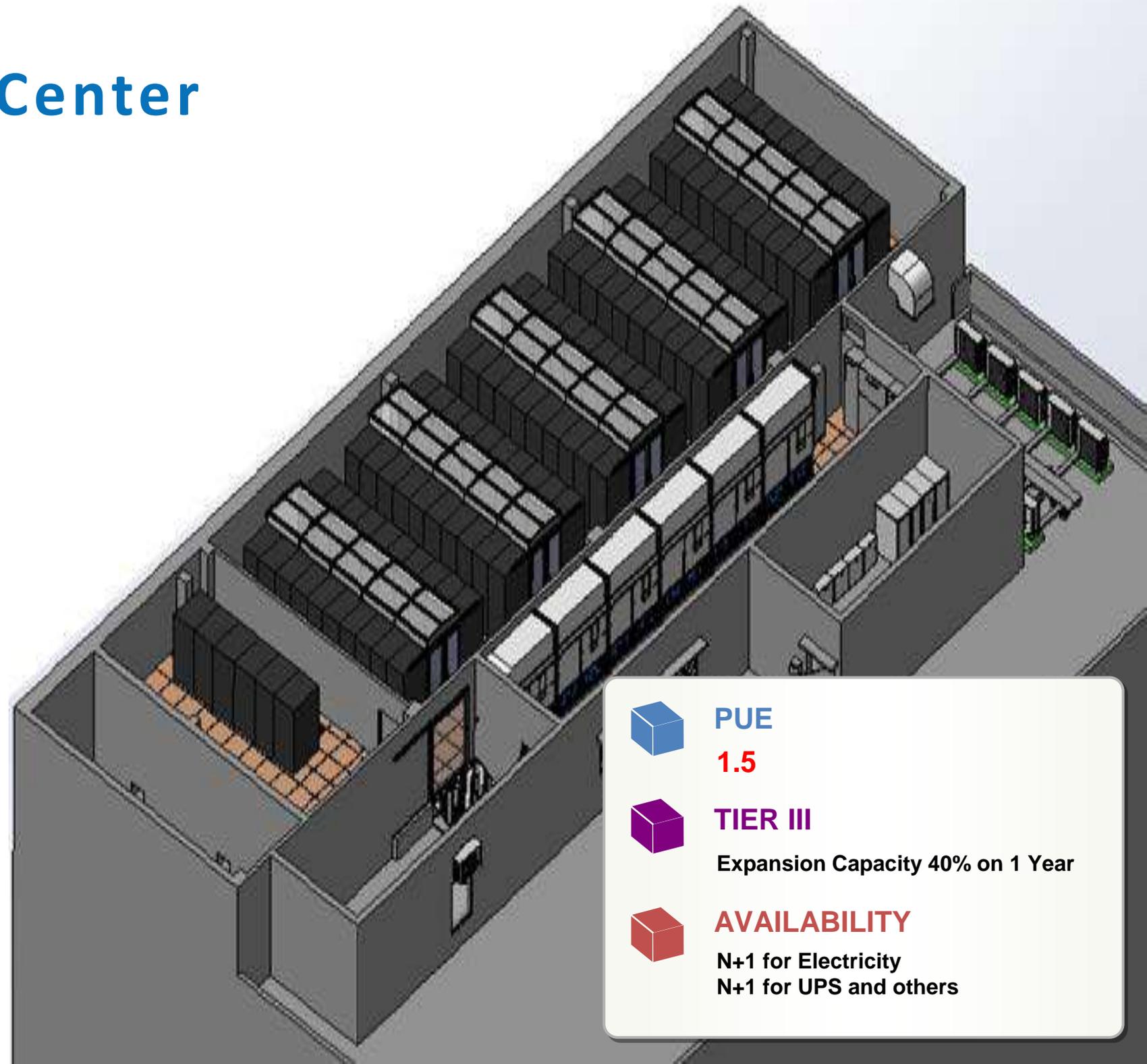| Opening	Q3/2022
Computer Room Area	350 m2
Rack Number	144 Racks
Critical IT Load	480 kW

USDC Smart Data Center

**Our Data Center
Tier III Standard**

We provide the most reliable facilities, robust security systems, and stable network connectivity for our Customers

Hoan Cau Smart Data Center

- Location: Saigon Hi-tech Park, Long Thanh My Ward, District 9, Ho Chi Minh city, Vietnam

- Computer Room Area: 300 m2

- Rack Number: 106 Racks

- Critical IT Load: 300 kW

- Design Standards: N+1

PUE
1.5

TIER III
Expansion Capacity 40% on 1 Year

AVAILABILITY
N+1 for Electricity
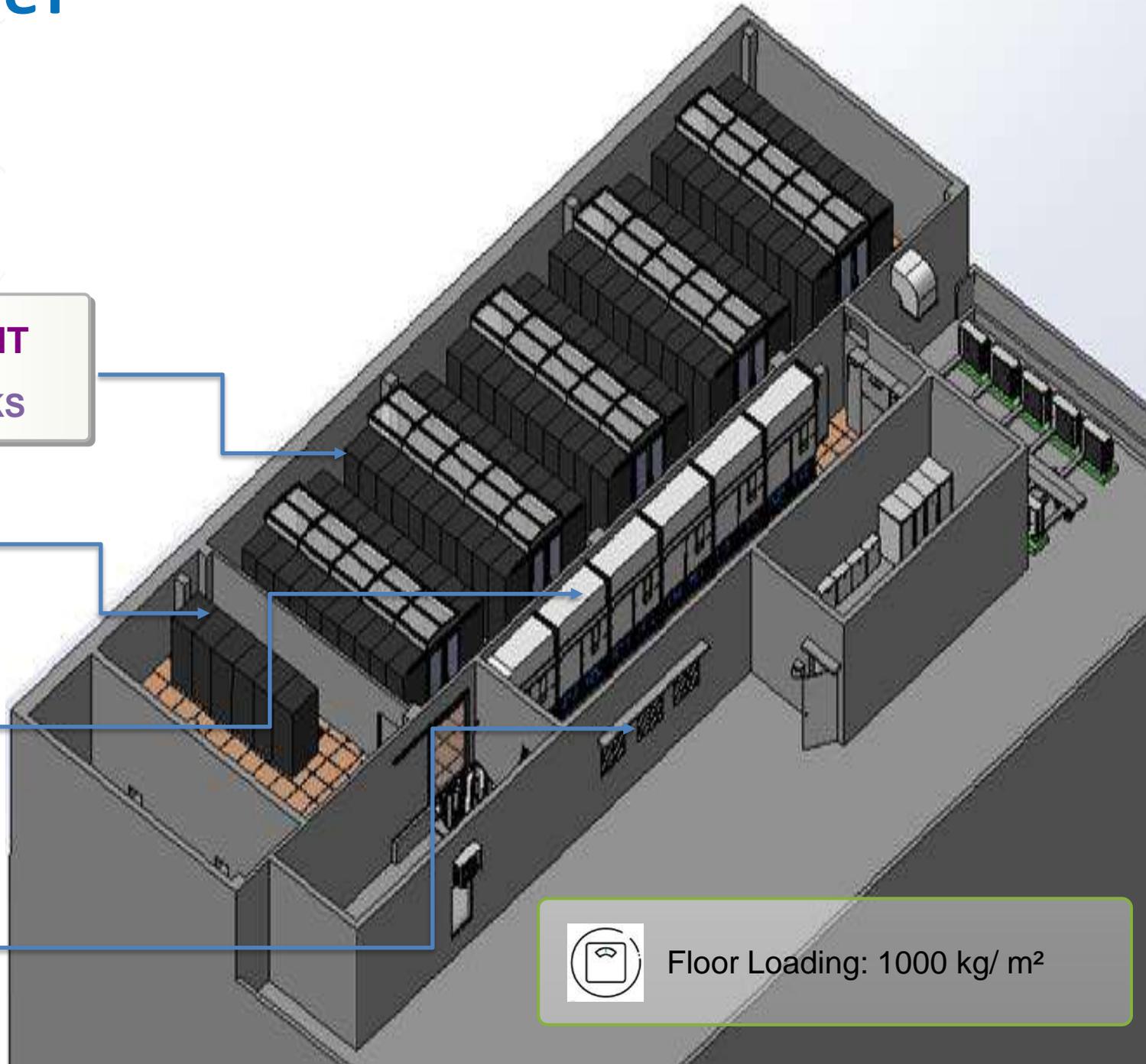N+1 for UPS and others

Hoan Cau Smart Data Center

UPS AND COOLING SYSTEM
USING THE CRAC

SAVING ENERGY
Automatic Light Sensor
Economizer System

FIRE SUPPRESSION
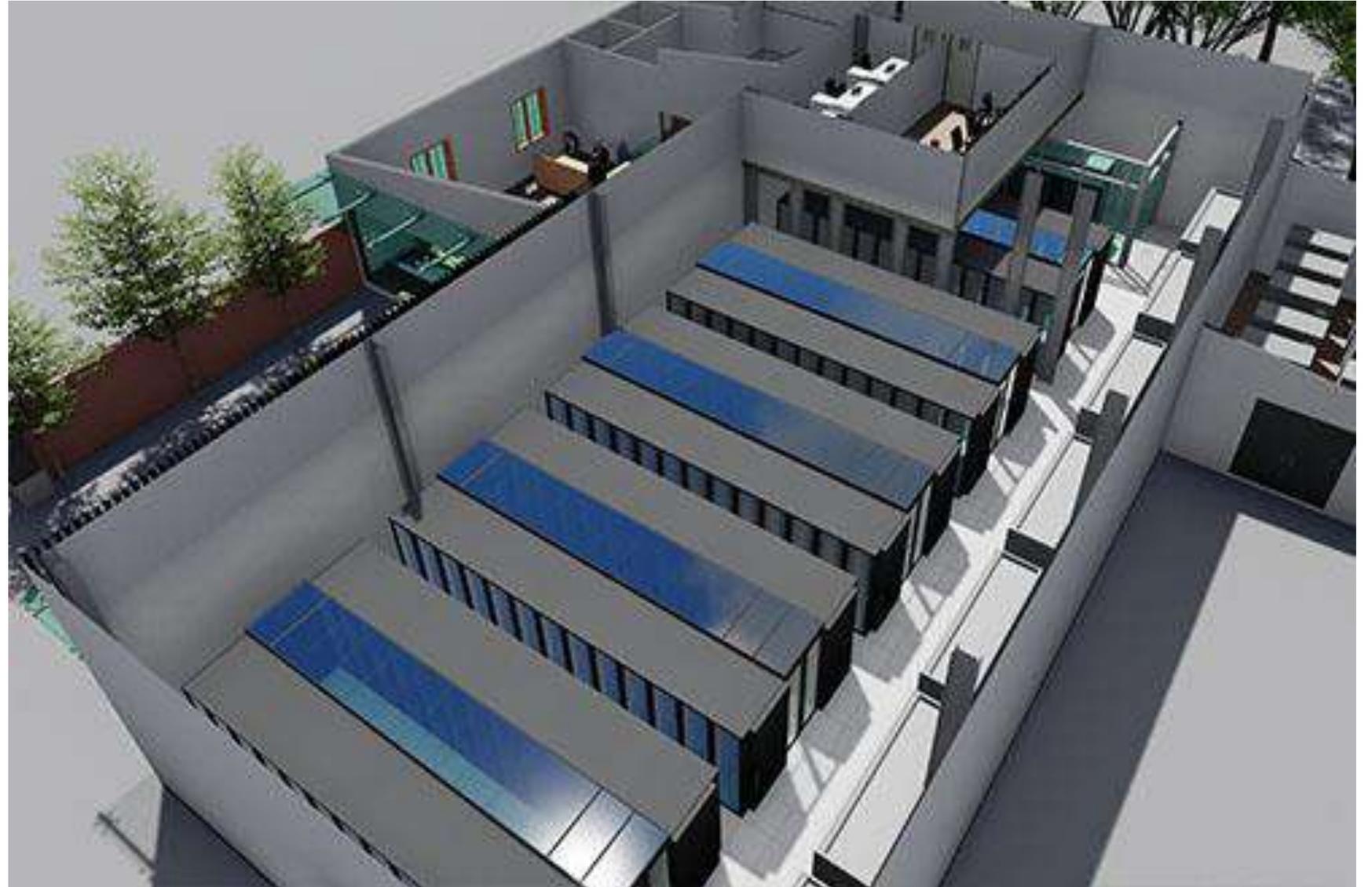STAT X

SEGMENT
106 RACKS

NETWORK

COOLING

ECONOMIZER

Floor Loading: 1000 kg/ m²

On-going Data Center

- Location: Long Thanh My Ward, District 2, Ho Chi Minh city, Vietnam
- Computer Room Area: 350 m2
- Rack Number: Over 100 Racks
- Critical IT Load: 350 kW
- Standards: Uptime Tier III

USDC Data Center Services

Colocation
- ✓ Private Cage
- ✓ Secure Cabinet
- ✓ AC Power Circuits
- ✓ Cross Connect

Bare Metal
Dedicated location specialized for Cloud and Service Providers

Backup & DR

Managed Services
- ✓ Remote Hands
- ✓ Smart Hands
- ✓ 24x7 NOC

Internet Access
- ✓ **Shared Bandwidth**

  Interface/Port: 1GE/10GE/100GE
  International/domestic - from 1Mbps to 100Gbps

- ✓ **Dedicated Bandwidth**

  Interface/Port: 1GE/10GE/100GE,
  International/domestic - from 1Mbps to 100Gbps

Private Leasedline Circuit
- ✓ IPLC: Up to 100Gbps
- ✓ IEPL (L2MPLS, Ethernet): up to 100Gbps

Local Access
- ✓ Metro-Ethernet: Up to 100Gbps
- ✓ MPLS (L2, L3): Up to 100Gbps

USDC Data Center Specifications

Rack size
600x1070x2200 (47U)
Standard 19" EIA 310
Adjustable based on
customer requirements

Cable Input
There are 3 independent
cables direct connect to
the data center

Security
24/7 on-site staffed security
authentication access with multi-
layered security controls

Power system
- Input source: 2
  independent sources
- Generator: Backup N+1
- Power distribution
  system and UPS

Connect
With the presence of all
ISPs in Vietnam

Chứng chỉ
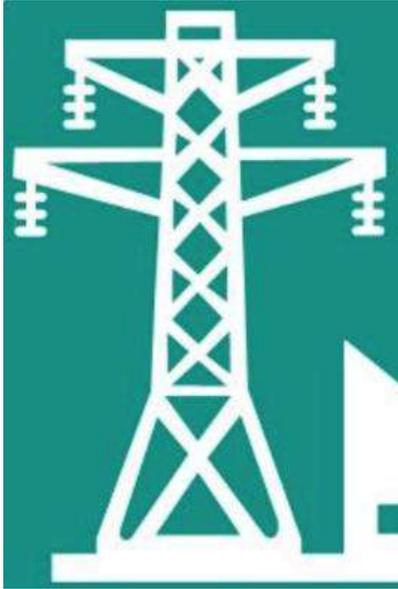- Tier-3 Uptime Design

Cooling system
Central cooling system, using large
capacity chiller

USDC Data Center Specifications

POWER SUPPLY

- ☑ 02 independent input grid power sources from 2 power transformer stations
- ☑ N+1 backup transformer system with capacity: 5x3000 kVA
- ☑ The low voltage power distribution system is designed according to the 2N backup model

GENERATOR

- ☑ 02 independent diesel generator systems for IT and M&E loads, with total capacity:7x1875kVA
- ☑ Underground oil storage tank ensures continuous operation for 72 hours 4x36,000 liters
- ☑ System redundant design N+1

UPS SYSTEM

- ☑ UPS technology True online double conversion
- ☑ 2x1600 kVA for each floor
- ☑ 15 minutes storage time under full load

USDC Data Center Specifications

CHILLER SYSTEM
- Centrifugal technology magnetic field
- Power 4x1750 kW, backup N+1

PIPE SYSTEM
- The pumping systems, valves and water pipelines is designed according to the ring circuit model, with N+1 redundancy

AIR CONDITIONINER
- Using a large capacity CRAC system
- Allows to adjust room temperature and humidity with high accuracy
- Maintain temperature at 22ºC +/-2 ºC.
- Maintain humidity at 50%+/-10%

USDC Data Center Specifications

CCTV
- ✅ No blind spots
- ✅ Continuous data storage for at least 90 days

ACCESS CONTROL
- ✅ Multi-modal access management system
- ✅ Allows the use of fingerprint, face, PIN, and card

EARLY SMOKE WARNING
- ✅ The highly sensitive early smoke warning system helps detect fires in the early stages.

USDC Data Center Specifications

RACK
- ☑ 600x1070x2200 (47U)
- ☑ Standard 19" EIA 310
- ☑ Adjustable based on customer requirements

LIGHTENING PROTECTION
- ☑ Multi-stage lighting protection racks: primary, secondary, noise filtering.
- ☑ Ground resistance for equipment <1 ohm

DCIM
- ☑ Intelligent monitoring system
- ☑ Monitoring working parameters, warnings of electromechanical systems, environment.

FLOOR LIGHT SYSTEM
- ☑ Loads up to 15.4 kN/m2
- ☑ Height 600mm

SYSTEM LEAK WARNING
- ☑ The liquid leak alarm system allows to pinpoint the exact location of the leak

CABLE SYSTEM
- ☑ Specialized tray system for fiber optic and copper cables
- ☑ Allows cabling in 2 independent directions to the rack

Our Special Offers
(In Q3/2021 Only)

Promotion for Rack Colocation

RACK COLOCATION
space with the proper power, cooling and security

RACK STANDARD — MONHTLY PLAN 12.000.000 VND — 6 kVA 47 U

Only 12 Mil VND/Rack Offline/Month

Promotion for Bare Metal As A Service

Only 18 Mil VND/05 Dell EMC R630 Server/Month
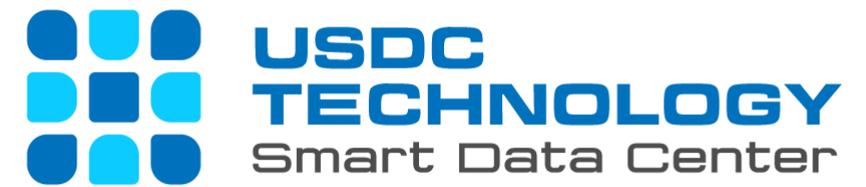
Our Alliance Partners

We are the Representative for Uptime Institute in Vietnam & Indochina

With our in-house human resources who had been certified by Uptime Institute – the Independent Advisory Organization for Certifications for Data Center, with years of field experience in reviewing data centers to help our clients solve a wide range of challenges in their broader IT organization.

Our team of experienced data center professionals will consult to ensure that data centers are reliable and efficient, whether you're building a new data center or have existing infrastructure that you're looking to get certified.

Uptime Institute®

![USDC Technology - Smart Data Center logo]

USDC TECHNOLOGY
Smart Data Center

Contact Us
Hotline: (028) 7308 0708
Email: info@usdc.vn