

# DATA CENTER AS RE INVESTMENT

FOR WEALTH MIGRATE MASTERMIND SHARING



## ANTHONY NG -FOUNDER

MBA-Marketing, Nottingham-Trent University, UK

Bachelor of Civil Engineering-Structural Emphasis, Michigan Tech, USA



**ExCalibre (HK) Int'l Ltd.**, is collaborating with our groups of investors to Invest-Develop-Operate Critical Real Estate Assets – a global portfolio of Data Centers in Gateway Cities – currently focusing on Taiwan, Phoenix, Arizona and California in USA, and large-scale industrial projects across the Asia Pacific region.

- Over 24 year of experiences in Real Estate Investment and Project Management
- Current Investment: **#Datacenter #IOTs #AI #Blockchain #Supercomputing #Logistics**

### Previous Roles:

- ❖ **CEO / Founder – J & J Group Data Center**
- ❖ **HSBC Pinnacle Projects – Project Lead 2020 to 2021**
- ❖ **Currie & Brown Head of Projects, North Asia region 2017 to 2019**
- ❖ **DFS/LVMH Group Store Development Senior Manager. 2015 to 2017**
- ❖ **DTZ North Asia Head of Projects 2011 to 2014**



- HSBC
- GZ TOD Mix-used
- Saudi Pavilion
- Chongqing Mix-Used
- Volvo JTC

## DATA CENTER AS AN ASSET CLASS

- Requires large CAPEX upfront but reaps high Valuation (15x – 25x) at Exit
- Provides “sticky” tenants for long term (5-10 years) steady rental income
- Profit Margin (>50% Gross) and >25% IRR



**KKR and Global Infrastructure Partners acquire CyrusOne for \$15 billion**

**Blackstone acquires QTS for \$10 billion**

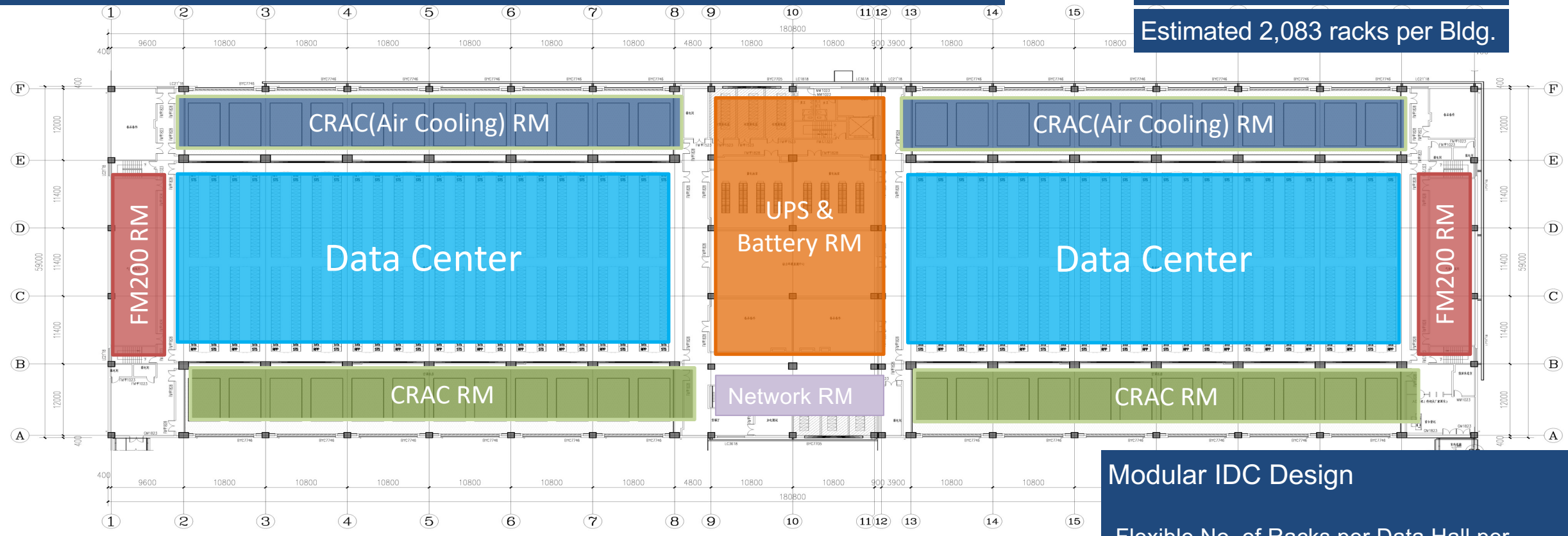
**Brookfield and Ontario Teachers' Plan acquire Compass Datacenters for \$5.5 billion**

**EQT Infrastructure acquires EdgeConneX for \$2.5 billion**

AI-Powered / Super-Computing Specified Server Racks: 48kw per Rack and above

IT Loading: 100MW

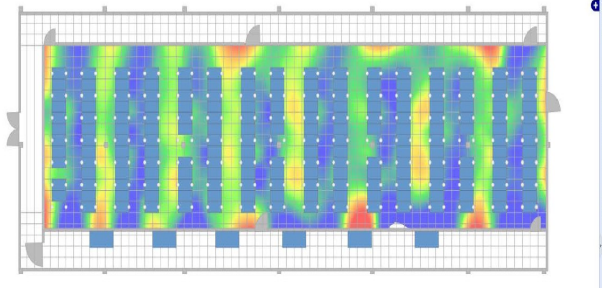
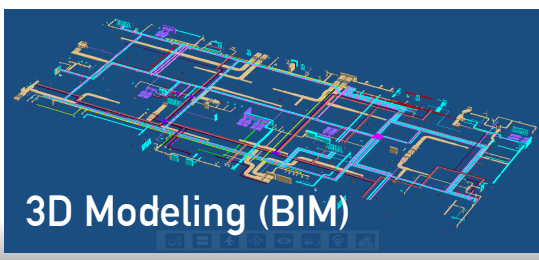
Estimated 2,083 racks per Bldg.



AI intelligent operation and maintenance to reduce energy consumption

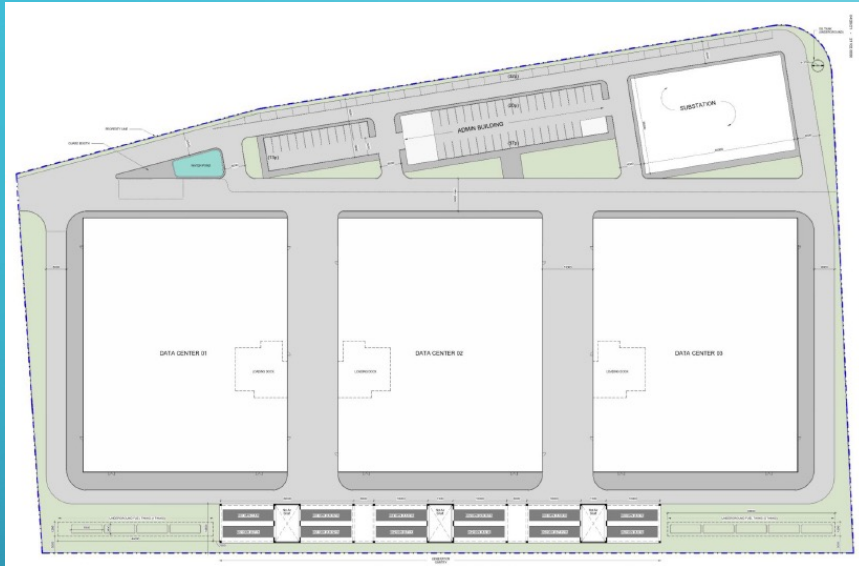
**Modular IDC Design**

- Flexible No. of Racks per Data Hall per Module for fast-track deployment
- Flexible for different client requirement
- Class A office space & Break Room
  - Work kiosks
  - Conference room
  - Rack and server lifts



# SUCCESSFULLY INVESTED: SHANGHAI DATA CENTER (2020 – 2023)

GFA: >925,137 sft. 9,000 racks. IT Load: 78MW. CAPEX: USD 350 million

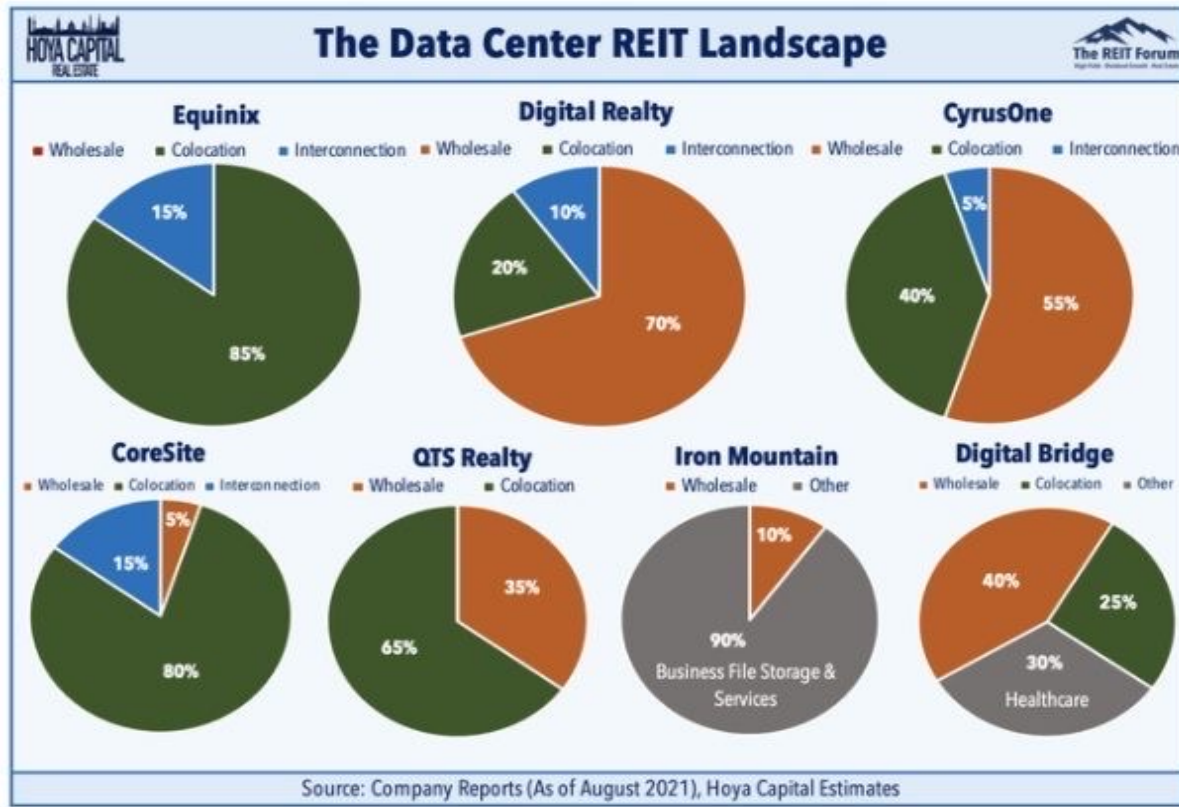


- **Data Center Tenants:** PingDuoDuo (Phase 1), Lenovo, JP Morgan Chase (Phase 2)
- UK Investors acquire the entire Data Center deal from local China team via HK SPV

# DATA CENTER TYPES:

Attribute	Wholesale	Colocation	Interconnection
<b>Tenant Size</b>	Larger	Smaller	Both
<b>Percent of Leasing</b>	Highest	Lower	Lowest
<b>Pricing/Value</b>	Lower	Higher	Highest
<b>Barriers To Entry</b>	Lower	Higher	Highest
<b>Lease Term</b>	5-15 years	<5 years	<5 years
<b>Typical Tenants (Examples)</b>	Amazon, Google, Microsoft, Apple	Bank of America, McDonalds, Walmart	Verizon, AT&T, Comcast, T-Mobile

- Technical Setup of Data Center is very challenging. Requires Expertise RE Team
- Largest Data Centers are self-owned & operated by “Hyperscalers” such as AWS, Microsoft Azure, Google, Apple
- Typical Development Duration is >27 months due to shortage of power & key MEP equipment delivery time.



# DATA CENTER MARKET LEADERS

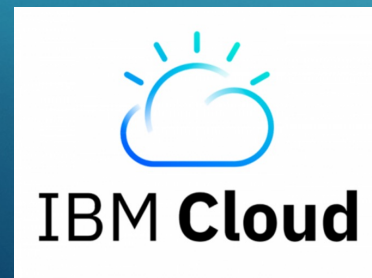
The 10 largest providers and operators of data centers, including Amazon Web Services (AWS), Microsoft Azure, Google Cloud, Meta Platforms, Equinix, Digital Realty, NTT Global Data Centers, CyrusOne, IRON MOUNTAIN, and KDDI, operate over 1,250 facilities around the world.



Google Cloud Platform



EQUINIX



REF.: <https://dgtlinfra.com/top-data-center-companies/>

<https://datacentremagazine.com/articles/top-10-data-centre-companies>

# MACRO VIEW – DATA CENTER MARKET

As World's Digital Economy grows in the Post-COVID era, the The Data Center market size is estimated to grow by **USD 615.96 billion** from 2021 to 2026, growing at a **CAGR of 21.98%**. 35% of the market's growth will originate from **North America**.

The Global Data Center Colocation Market Size was estimated at around USD 50.4 billion in 2021 and is **expected to reach USD 57.2 billion in 2022** growing at a **CAGR of nearly 14.2%** from 2022 to 2030. And with the recent development of Generative AI, this growth will be even faster.

## GLOBAL DATA CENTER MARKET 2022-2026



Market growth will **ACCELERATE** at a **CAGR** of

**21.98%**

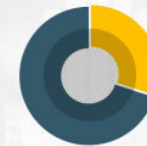


Incremental growth (\$B)

**615.96**



The market is **FRAGMENTED** with several players occupying the market



Growth Contributed by **NORTH AMERICA**

**35%**



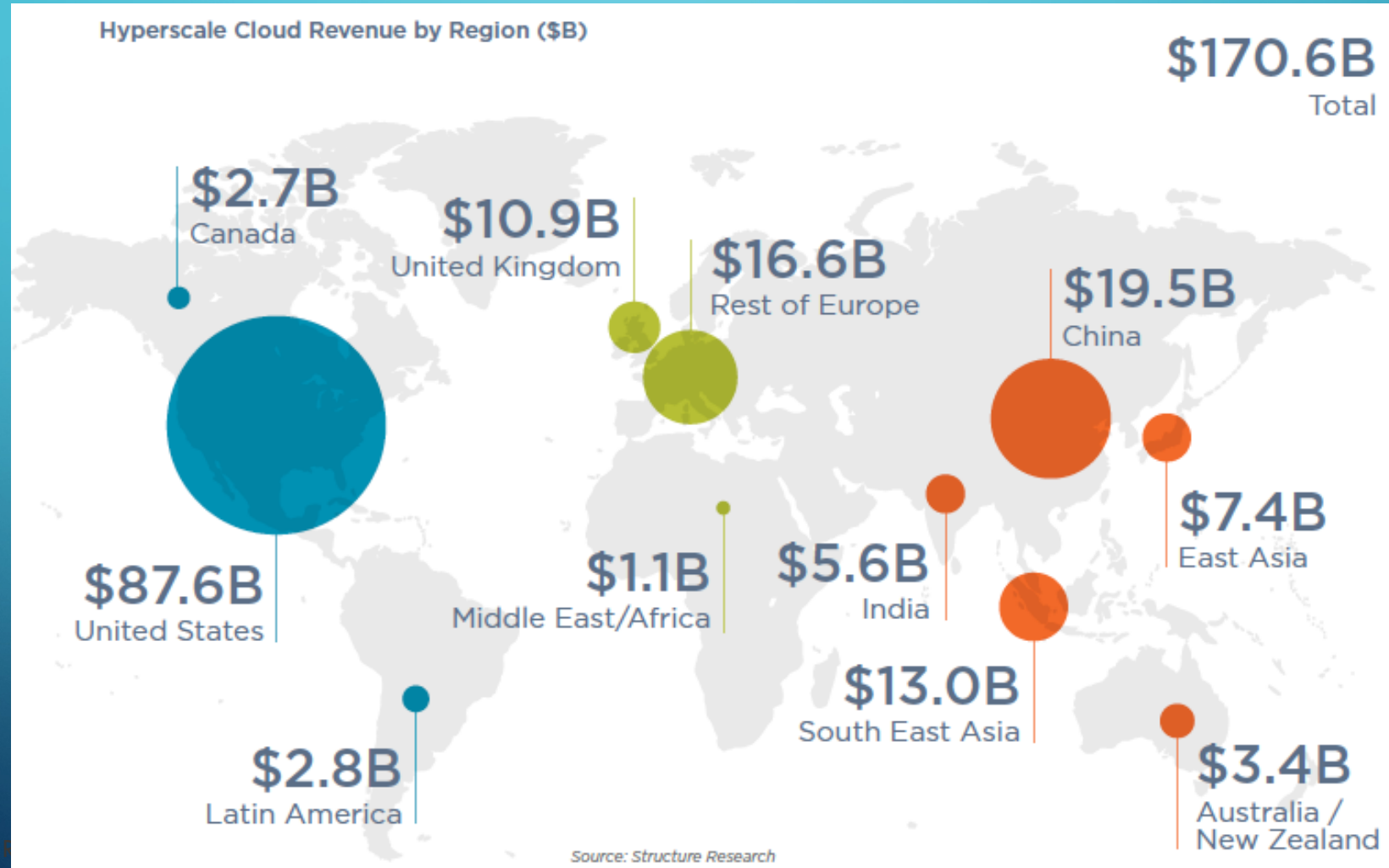
Growth for **2022**

**20.22%**



# MACRO VIEW – DATA CENTER MARKET

US has the largest Cloud Services revenue (\$87.6B) in the world, and Phoenix, Arizona ranks 5<sup>th</sup> among the top 20 data center markets by sales volume, with a total of \$482.3 million in transactions closed from 2012 through 2021, with a total of 876,000 square feet of new data center space added since 2012.



# Phoenix, Arizona – Q1 2024 Deal #1

Why Phoenix? One of the lowest Power Cost ⚡ in US.

In average, SRP Rates for >20MW Data Center\*, **5.71 cents**(Jan, Winter months) – **9.51 cents** (July, Summer Months) per kWh.

As a comparison, California Electricity Rate: Ave. 17.37 cents/kWh, 116.3% higher than the US average (ended December 2022)

- Green Energy available / Connectivity - Robust Dark Fiber Network



# Kuala Lumpur, Malaysia– Q1 2024 Deal #2



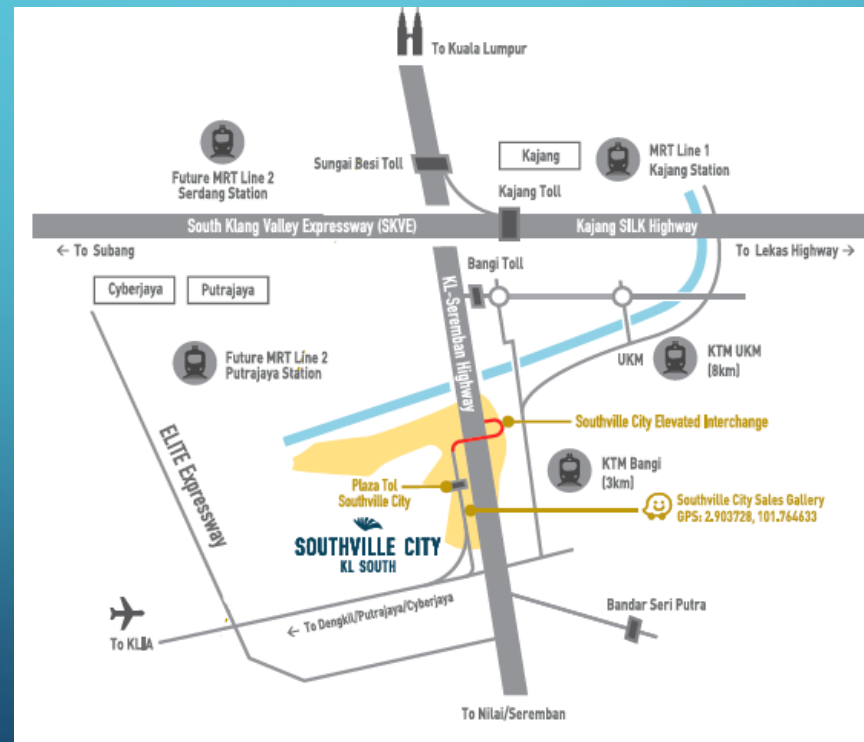
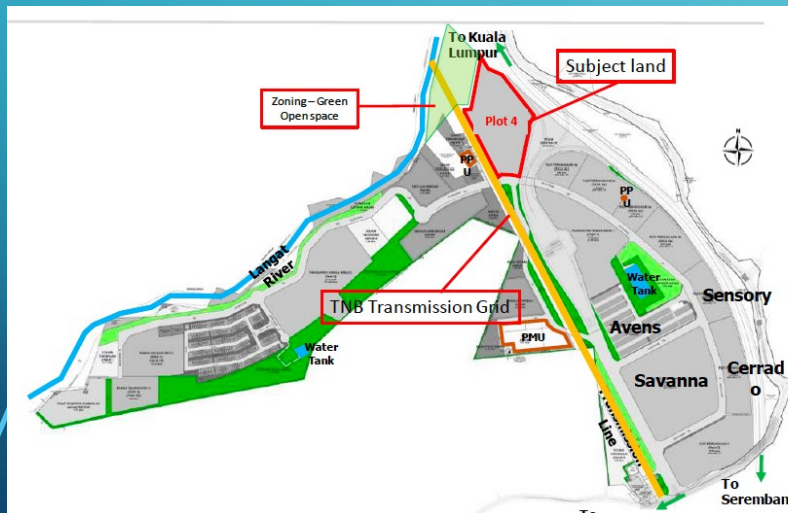
ExCalibre  
International Limited

Why Malaysia? Hottest Data Center Market in Southeast Asia due to Singapore lack of land/power.

Up to 1,500MW data center capacity announced.

Major Players: AWS, Microsoft, Keppel DC, GAW Capital, GDS, Bridge Data Centres, Yondr Group, Equinix and Byte Dance System, YTL Group all have announced big Data Center investment.

- Green Energy available (Hydro & Solar) and Cheaper Land Cost Vs. Singapore



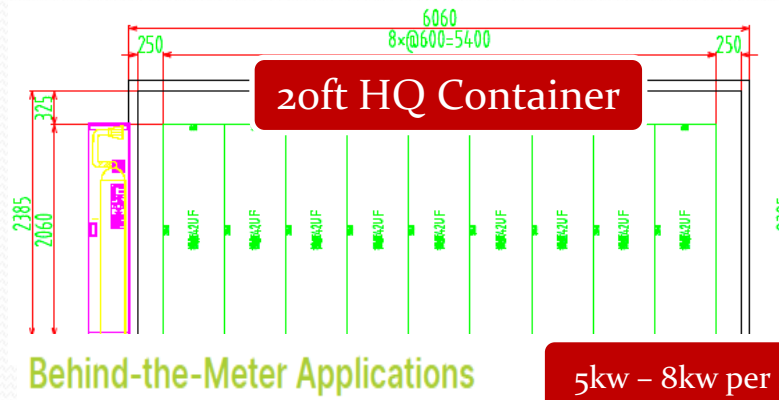
## Connectivity

- Southville City Direct Interchange
- **3km to Bangi KTM Station**
- 8km to UKM KTM Station
- **10km to Putrajaya MRT station**
- 25km KLIA
- 33km KLCC

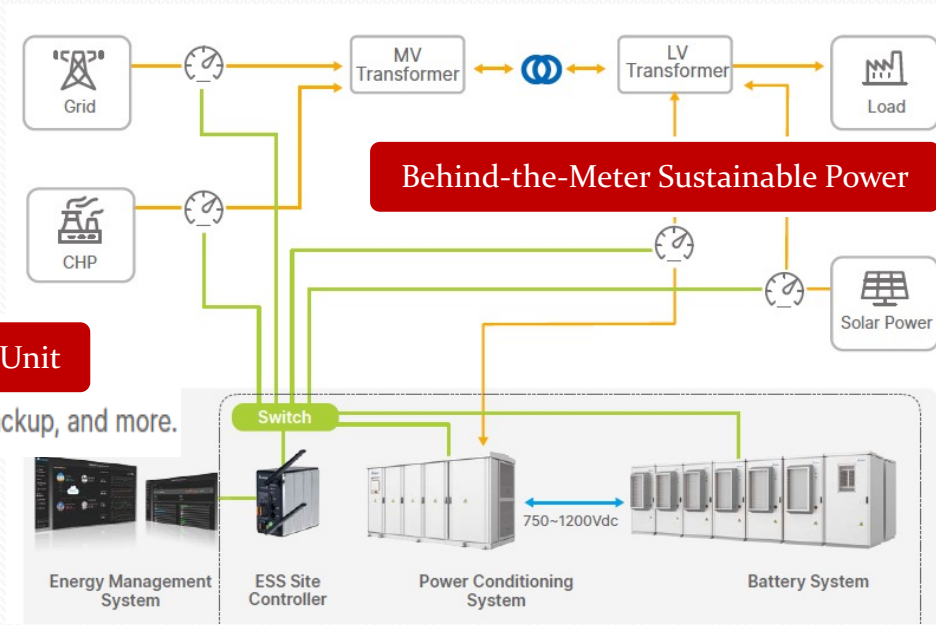
## Surrounding Town Centres (< 25 km)

- Bandar Baru Bangi = 5 km
- Putrajaya = 10 km
- Kajang = 10 km
- Nilai = 11 km
- Cheras = 18 km
- Cyberjaya = 22 km
- KLIA = 25 km

# 100% Renewable Energy-Matching Modular Design



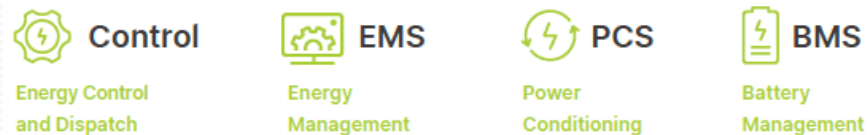
Applied to micro-grids, peak shaving, and PV self-consumption, power backup, and more.



## ESG-Positioned Modular Design:

- ❖ Renewable Energy + Self-Contained Cooling Solution
- ❖ Speed-to-Market: 4 months Servers + Container Build-up
- ❖ PUE ~1.2. Total Power Loading = 1.3MW per container
- ❖ Current Design Specs.: 16nm HPC Chips ==> 162 units SEC

### Solar Power Plants



## Estimated ROI for SEC Device Financing Investors:

Fund Invested	Annual Return (15%)	Total ROI for 3 years	Total ROI for 6 years
\$100m	\$15m pa	\$45m	\$90
Equipment Buy-Back Cash		70%	30%

## 100% Build-to-Suit Data Center :

Example: KL near CyberJaya Super Corridor High Speed Fibre Optic Net

- ✓ Total CAPEX: MYR 303m
- ✓ Est. Capacity: 100MW / 71.28 MW IT Loading
- ✓ Rental Income for Data Center = MYR 298m per year

Est. IRR: >29.5%

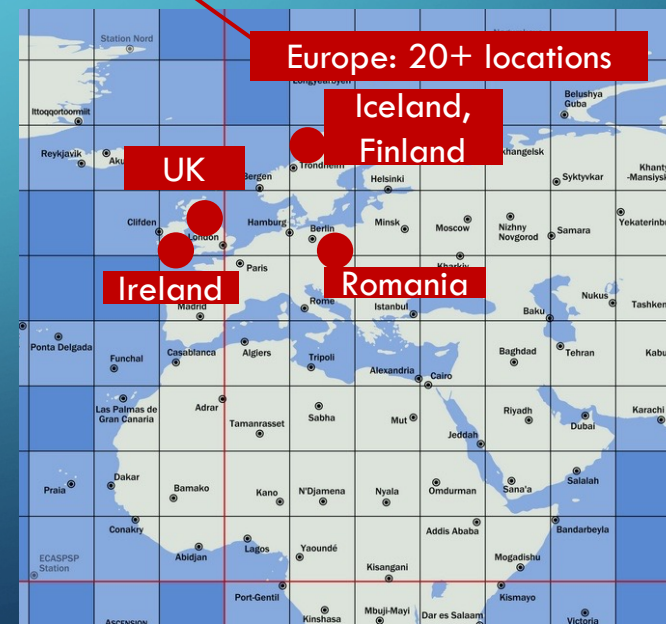
Assumption: MYR180/sft Cost for Core & Shell + ¼  
MEP Cost Vs. conventional data center interior fit-out

### Deal Proposal:

- Data Center provides Build-to-Suit White Space + Funding for SEC Servers
- Signs exclusive Rental Agreement with Data Center for 3 + 3 years
  - 25% Discounted Rental Rates
- Taiwanese major MEP Equipment for faster deployment / shorter lead time.
- Equipment Buy-Back Options: 75% after 3 years (Capital Recycled).



Global Data Centers



**Current Pipelines:**

- ❖ ESG-positioned with latest renewable energy solutions.
- ❖ A.I. & High Performing Computing Design.
- ❖ Total Deal Sizes: USD 3bn – USD5bn



## Asia Deals Highlights:

- De-risking & Divesting from China
- Taiwan – USA Unique Supply Chain Opportunities
- Exclusive Deal with Taiwanese Client secured for up to 30,000 HPC/AI-Powered Server Racks (min. 48kW per Racks)
- Other Asia Pacific Region Data Center Pipelines:
  - ✓ Malaysia Deals: 100MW (2-3 locations)
  - ✓ Philippines Deals: 20M + 30MW
  - ✓ Batam Deal: 11.6MW

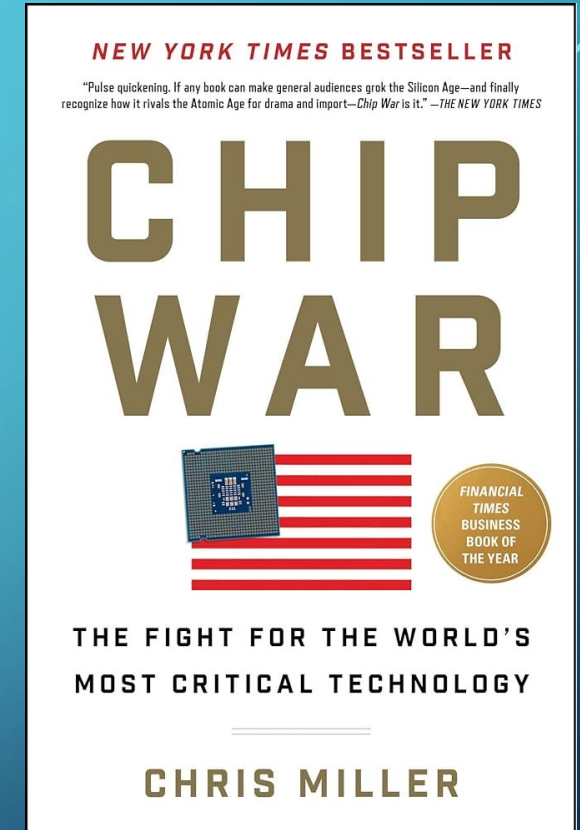
## New Deal Pipelines – Q2 2024:

- ❖ Kumamoto, Japan near TSMC Chip Site – 50MW
- ❖ Downtown Jakarta – 24MW
- ❖ Perth, Australia – 8MW+
- ❖ Cambodia – 10MW+
- ❖ Sabah, Malaysia
- ❖ Hong Kong



# CHALLENGES AND OPPORTUNITIES

- AI-Supercomputing Data Centers will require more MW per GFA
- Polarization of Markets due to US-China rivals (Advanced AI-Chips)
  - China will be World's No. 1 Market for Data Center but facing technology hurdles
  - US will continue to dominate but power shortage and tight supply chain persists.
- Speed-to-Market, more demanding Cooling Solutions and ESG/Sustainable Development of Data Center.





THANK YOU FOR LISTENING

FOR WEALTH MIGRATE MASTERMIND SHARING