



Growth Strategy of NTT Global Data Centers

IR DAY 2023

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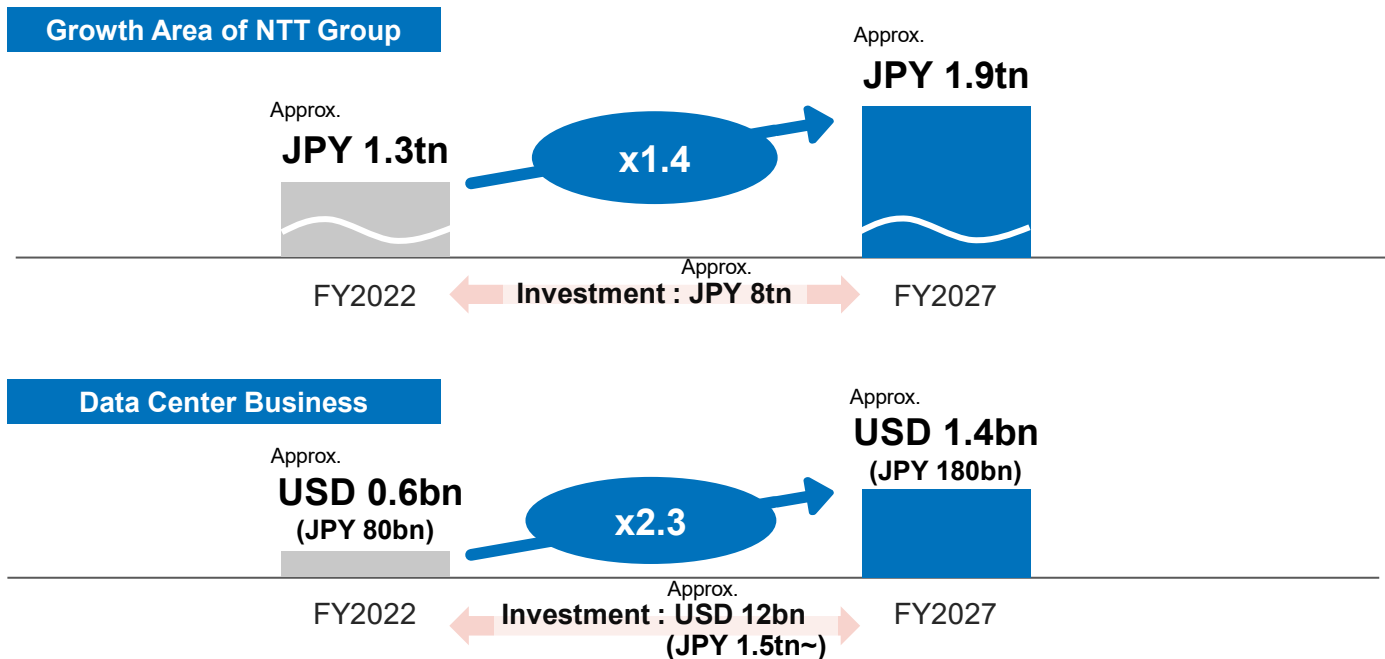
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Data Center Business as a Growth Engine

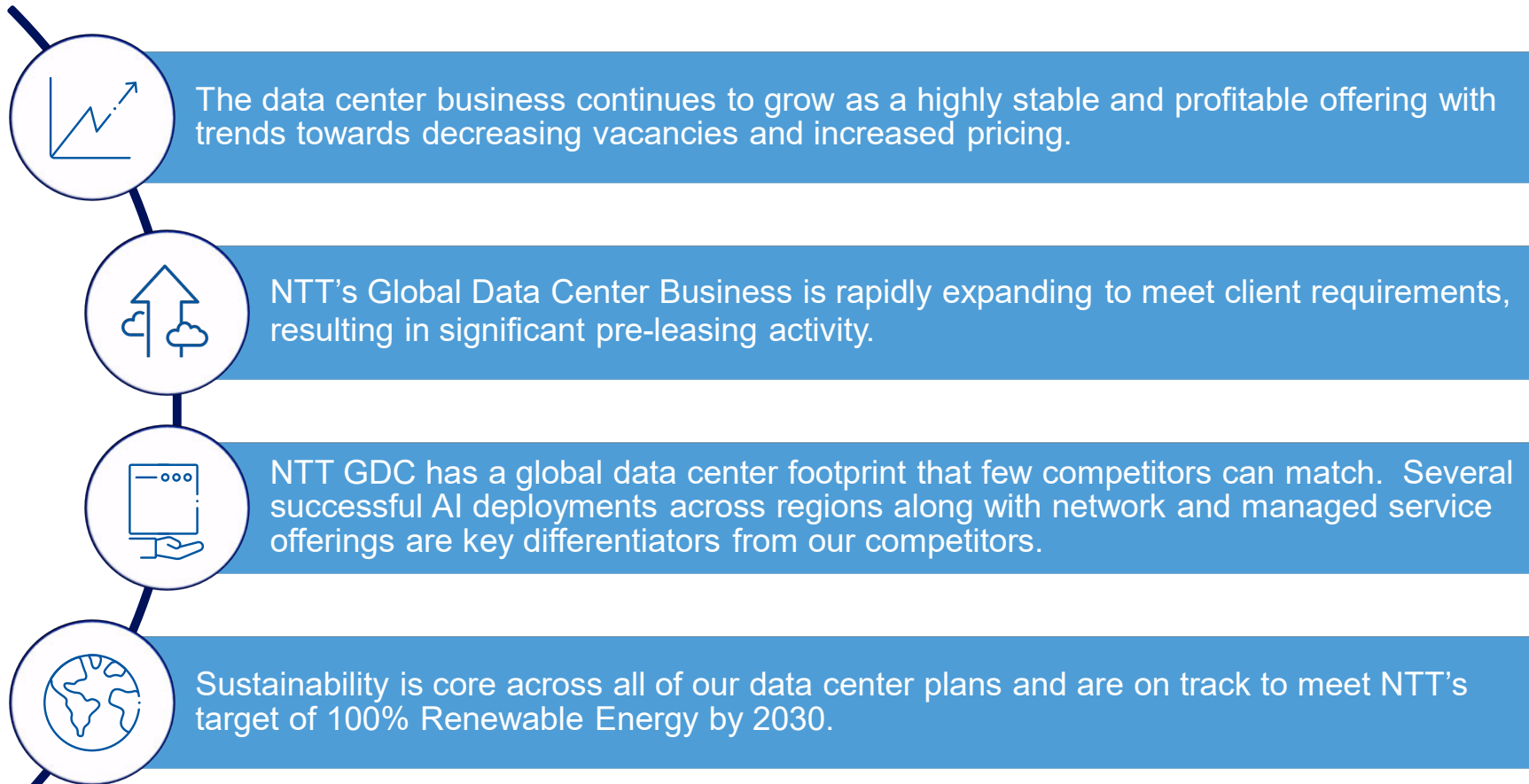


NTT has committed to invest at least JPY1.5 trillion into data centers until the end of FY2027 as one of the pillars of our new medium-term strategy, aiming to double EBITDA during this period by leveraging our proven operational and technological capabilities

EBITDA Growth Target



Global Data Centers Presentation Overview



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Strategic Priorities

NTT GDC Priorities



Accelerate Revenue and Increase Profit

- Significant pre-leasing
- Full-stack NTT solutions
- Drive economies of scale



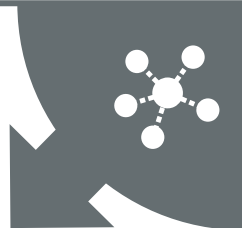
GDC Transformation

- True portfolio management
- Third-party capital investment
- Sustainable client relationships and UX



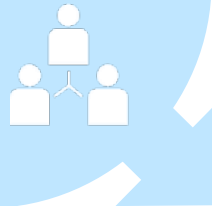
GTM For Generative AI

- High MW opportunities beyond Hyperscale clients
- Proven deployer for high-density requirements



Employee Engagement

- Foster employee engagement and increase satisfaction
- Actively managed diversity and inclusion initiatives



NTT is the leading global data center provider delivering tailored colocation, interconnectivity, and managed service solutions across retail, enterprise, and hyperscale clients

GDC Existing Footprint

NTT Global Data Centers Footprint

98 Sites, 148 buildings

1,209 MW IT Power (Launched) + 772 MW (Planned)

Americas

US

Hillsboro | Sacramento
| Santa Clara |
Dallas | Chicago
Ashburn | Phoenix

344MW

Launched

+366MW

Planned

EMEA

UK | London
Germany | Frankfurt | Munich
Berlin | Hamburg | Bonn
Netherlands | Amsterdam
Switzerland | Zurich
Austria | Vienna
Spain | Madrid
South Africa | Johannesburg

417MW

Launched

+44MW

Planned

India

Mumbai | Bengaluru
Chennai | Noida | Kolkata

177MW

Launched

+307MW

Planned

APAC

Japan | Tokyo | Osaka | Kyoto
China | Hong Kong, Shanghai
Malaysia | Cyberjaya
Singapore
Thailand | Bangkok
Vietnam | Ho Chi Minh City, Hanoi
Indonesia | Jakarta

271MW

Launched

+55MW

Planned

As of September 2023, NTT Ltd. group and NTT Communications group including JV with 3rd party.
The above plans are subject to change.

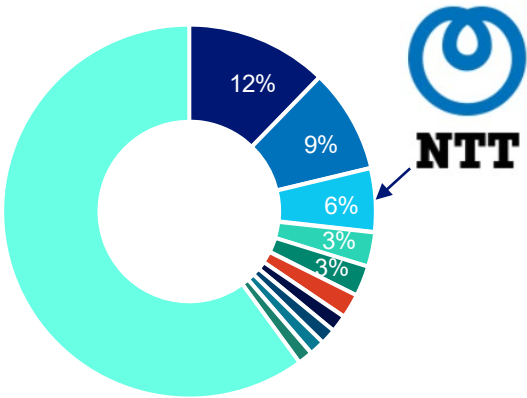
Global Ranking and Positioning

NTT's Position In The Global Market

NTT GDC is currently ranked as 3rd largest data center operator in the market

Global Data Center Colocation Revenue Share¹

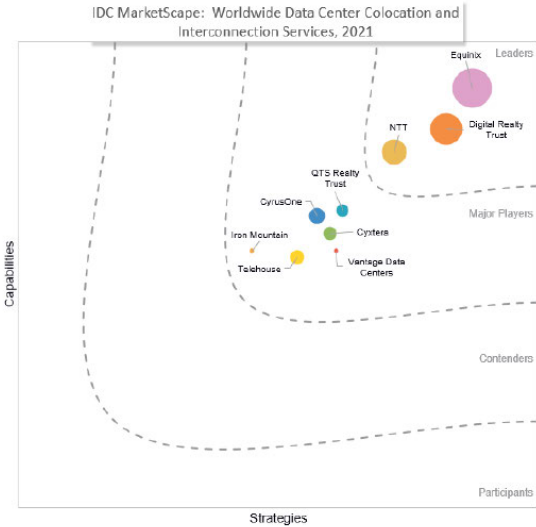
	Leaderboard
1	Equinix
2	Digital Realty
3	NTT GDC
4	Digital Bridge
5	CyrusOne
6	KDDI
7	American Tower
8	Cyxtera
9	Flexential
10	QTS
	Others



NTT GDC is widely recognised as the third largest data centre operator with a global footprint

¹ NTT created the chart as excl. service providers in China from Structure Research May 2023 Report

Global IDC MarketScape Vendor Assessment ²



NTT is named as a "Leader" due to it broad service offering and global reach

² IDC MarketScape: Worldwide Datacenter Colocation and Interconnection Services 2021 Vendor Assessment (June 2021, #US46746121)

IDC MarketScape vendor analysis model is designed to provide an overview of the competitive fitness of ICT suppliers in a given market. The research methodology utilizes a rigorous scoring methodology based on both qualitative and quantitative criteria that results in a single graphical illustration of each vendor's position within a given market. The Capabilities score measures vendor product, go-to-market and business execution in the short-term. The Strategy score measures alignment of vendor strategies with customer requirements in a 3-5-year timeframe. Vendor market share is represented by the size of the icons.












Growth Plan

Global Data Centers: Investing globally to meet local needs










NTT has significant capital to transform the data center landscape globally.











FY2023

 India Navi Mumbai 1B Data Center 30.4MW	 India Navi Mumbai 2-1 Data Center 9MW	 Germany Frankfurt 4G Data Center 12MW	 Germany Frankfurt 4E Data Center 12MW	 Germany Rhein-Ruhr 1B Data Center 4.8MW	 US Ashburn VA6 Data Center 24MW	 Malaysia Cyberjaya 6 Data Center 6.8MW	 India Bengaluru 3X Data Center 9.6MW	 India Chennai 2A Data Center 17.4MW	 India Mumbai 9 Data Center 41.6MW	 India Delhi (Noida) 2A Data Center 22.4MW
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FY2024

 India Navi Mumbai 2-2 Data Center 24MW	 Germany Frankfurt 4F Data Center 12MW	 India Kolkata 1A Data Center 6.4MW	 India Navi Mumbai 2-13 Data Center 50MW	 US Phoenix PH2 Data Center 36MW	 US Dallas TX2 Data Center 36MW	 US Chicago CH2 Data Center 36MW	 India Navi Mumbai 1C Data Center 25.6MW	 US Hillsboro HI2 Data Center 66MW	 India Mumbai 10 Data Center 25.6MW	 India Bengaluru 4 Data Center 22.4MW
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FY2025

 Thailand Bangkok 3 Data Center 12MW	 US Dallas TX3 Data Center 36MW	 India Navi Mumbai 1D Data Center 16MW	 US Phoenix PH3 Data Center 36MW	 US VA10 Data Center 84MW	 India Navi Mumbai 2-3 Data Center 24MW	 India Mumbai 11 Data Center 22.4MW	 Vietnam Ho Chi Minh City 1 Data Center 6MW	 Japan Keihanna Data Center 30MW	 US Ashburn VA7 Data Center 36MW	 UK London 1B Data Center 32MW
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Expansion Strategy

Expansion Strategy

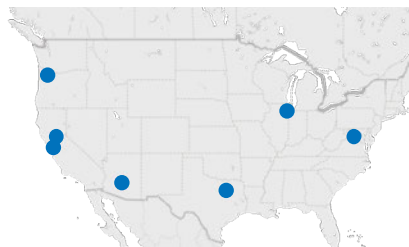


Remain top global data center operator, to provide exceptional value to our customers, drive technology initiatives and maintain leadership with the most influential companies in the world

Growth Strategy: organic expansion, land acquisition, and explore M&A to drive GDC platform growth

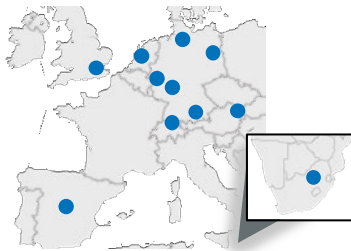
Americas

Grow key metro footprint, path to LATAM/Canada



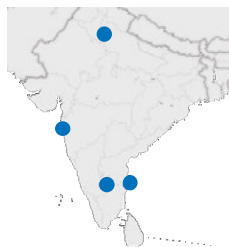
EMEA

Grow FLAP, engage hyperscalers for tier 2



India

Focus on regional growth to keep #1 position



APAC

Regional drive, focus on Japan and SE Asia



Organic Growth

Continue to use development as the primary means of expansion to drive recurring O/I growth and value creation



Land Banking

Fundamental to deliver new inventory and maintain growth trajectory over long term – required to capture AI and hyperscale demand



M&A

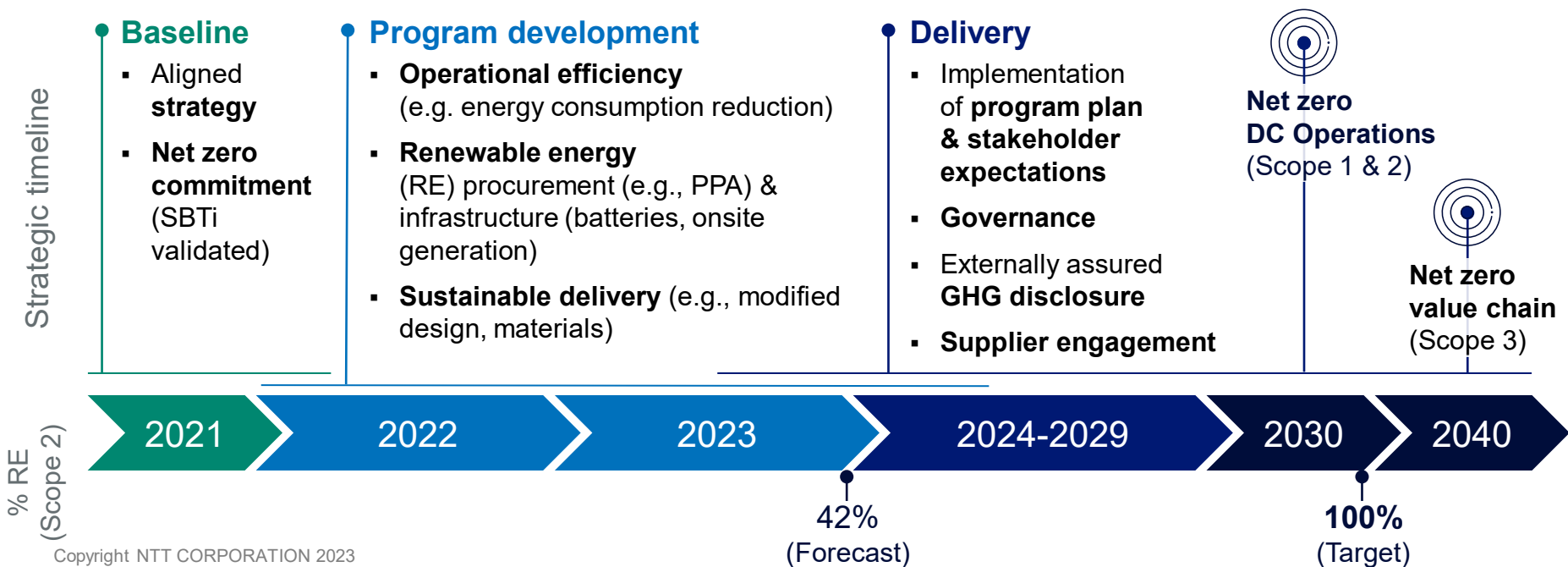
Disciplined and focused approach to unlock new market entry and acquire specialty products and expertise

Sustainability

Sustainability: Beyond Renewable Energy

NTT is committed to sustainability

- Established Green Bond to fund sustainability projects - \$7.8B USD since Oct '21
- Commitment of 1 million hours of annual employee volunteering
- 100% renewable energy by 2030 (reached over 1 million MWh already)



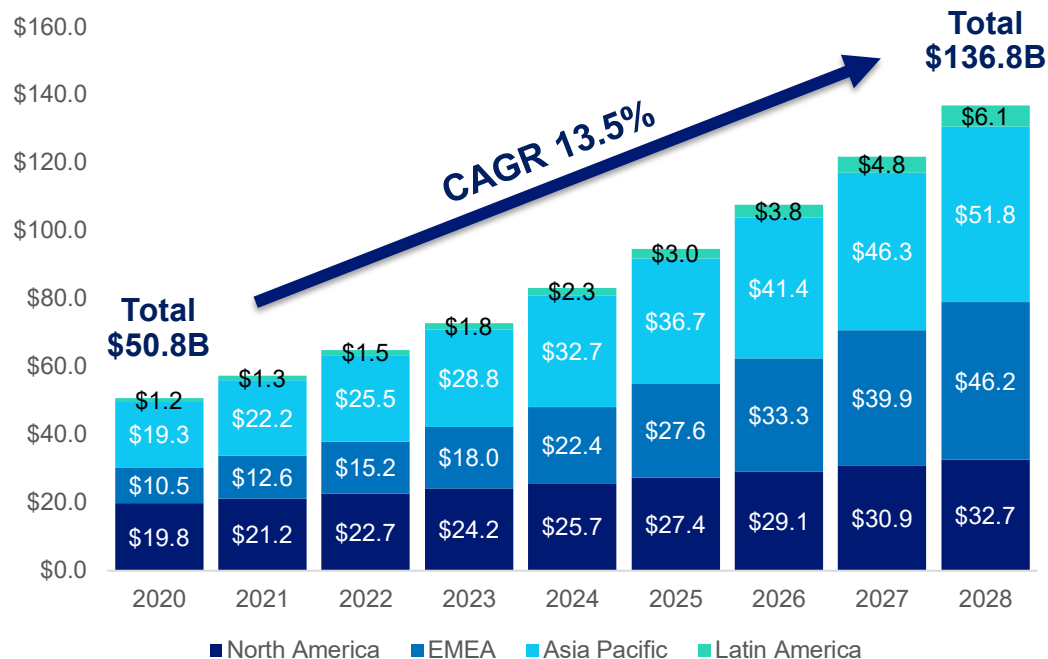
DC Market Tailwinds

Data Center GTM - Demand



Data Center market is expected to grow from \$50.8bn to \$136.8bn in 2028

Global DC Colocation Market Size
(\$B)



Global data center demand is growing significantly (13.5% through 2028)

This growth is seen across all segments – hyperscale and enterprise

AI will provide an additional demand boost estimated to exceed 20%

Top Data Center Market Conditions



Key data center markets are showing high demand and rising lease rates

Northern Virginia



Vacancy
0.88%
(↘ 17% YoY)



Lease Rates¹
\$145
(↗ 32% YoY)



2023 Absorption
447 MW YTD

Frankfurt



Vacancy
4.8%
(↘ 44% YoY)



Lease Rates¹
\$150
(↗ 23% YoY)



2023 Absorption
107 MW YTD

Tokyo



Vacancy
8%
(↘ 33% YoY)



Lease Rates¹
\$185
(↗ 21% YoY)



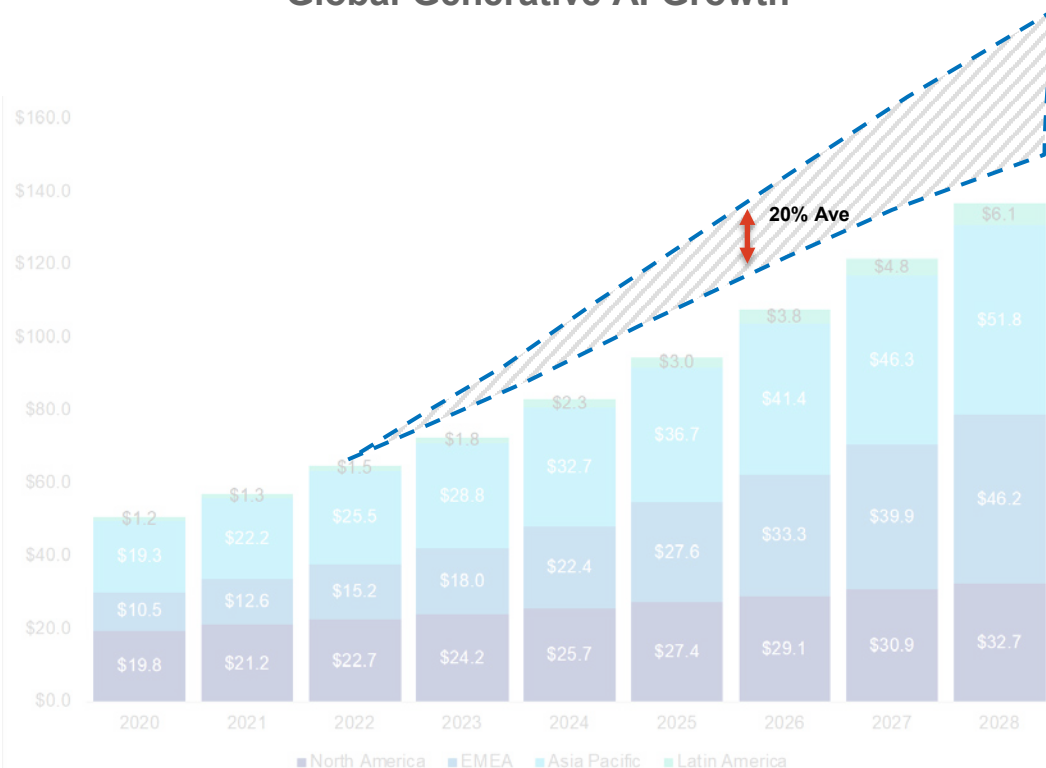
2023 Absorption
45 MW YTD

Data Center Demand: Generative AI Impact



Demand from Generative AI is expected to increase current projections by over 20%

Global Generative AI Growth



CAGR growth for Generative AI data center demand expected from 17% – 44%. (NTT Consensus 20%)

Data center market size with AI expected to be greater than \$150B by 2028

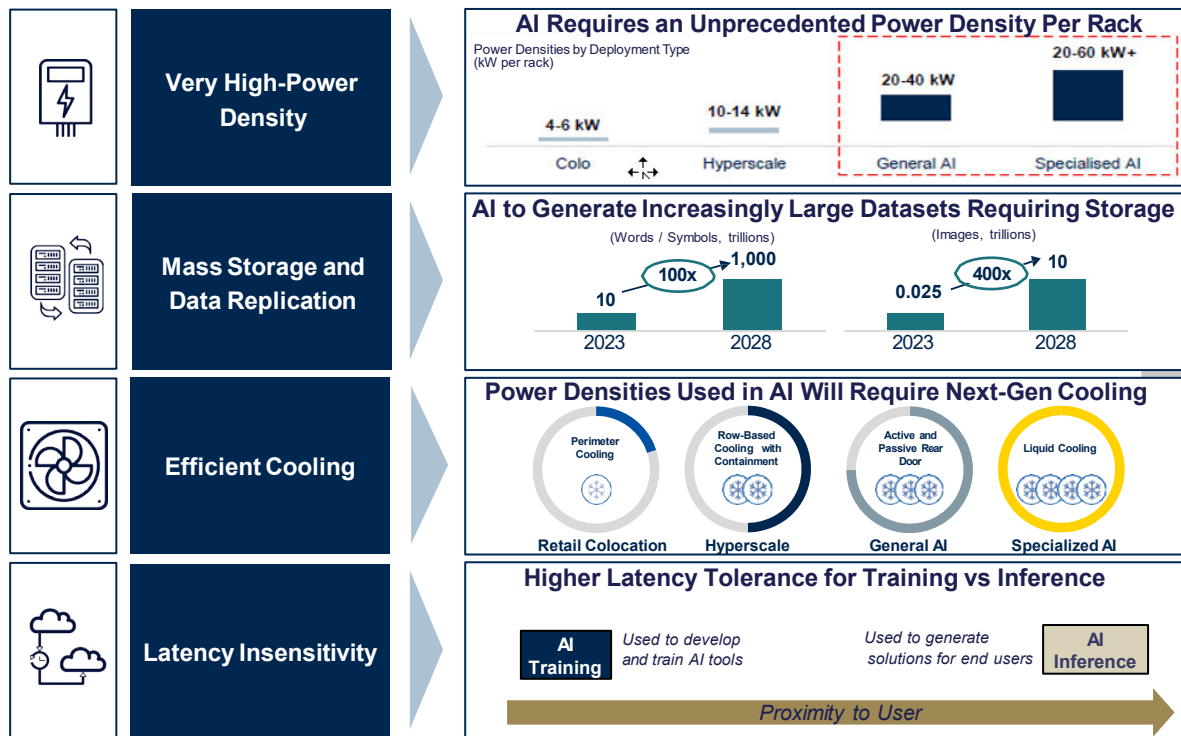
In the face of tight data center supply this is serving to create favourable pricing and absorption trends

Data Center Market Driven by Generative AI



Generative AI is estimated to be game changer for data center demand in the coming years
NTT is poised to see success given our clients, our product and commitments

AI Computing Requirements / Characteristics



What NTT is providing our AI clients

- ✓ *NTT has AI clients with current high-density implementations that are greater than 70kW per rack*
- ✓ *Our resilient data center design meets current and future AI deployment requirements*
- ✓ *Our campus approach and current locations have provided the needed capacity – and has led to record bookings and contracts*
- ✓ *We have deployed innovative cooling solutions in multiple regions and data centers that include Direct Chip Liquid Cooling (DCLC) & Liquid Emersion*
- ✓ *Providing flexibility and options for our client's server deployments*
- ✓ *Our commitment to sustainability and data center efficiency is a must have for AI – especially around renewable energy and cost control*

Competitive Advantage and Differentiators

Why Clients Choose NTT GDC

Clients trust us because we provide premium solutions with a proven track record of building and operating technologically advanced, high-quality data centers



Key Client relationships driving future growth

NTT has strong relationships with key clients that are leading the development and expansion of AI deployments in data centers globally.

Our clients can have the confidence that our data center offering will keep up with changing demands no matter the scale or location.



Flexible data center solutions

We can adapt our solutions to meet client needs. We are already deploying high density cooling solutions with multiple clients and partnering for future needs.

NTT has the flexibility to meet changing and evolving client data center requirements through our global product and design strategies.



Global Platform with aggressive expansion plans

NTT is building and deploying data centers across the globe to meet client demands with aggressive expansions planned and in construction, as well as broad connectivity including submarine cables.

Our clients know that NTT has data centers across the globe and is continuing to expand to meet all their needs.



Sustainability is core to our business

We have committed to net-zero emissions across our operations by 2030, including 100% renewable energy in our global data centers.

Our clients can rely on NTT to be a partner in their sustainability efforts and goals, as we are leading the way towards a more sustainable data center future.

Global Collaboration Case Studies



RBL Bank

Commercial Bank with a Network of 250 branches

- A multi-location DC landscape, comprising: primary, near-DR and far-DR sites to enable a secured and diversely located disaster recovery solution
- Platform-delivered Managed & Security Services
- Managed disaster recovery
- Software license provisioning & management

Fortune 100 Insurance Group

- Multi-market DC solutions (~4500km apart) catering to an organization undergoing large-scale transformation
- Network solutions tailored to clients' specific needs and connecting various locations
- Multi-cloud service provisioning and deployment support
- On-site DC support between GDC, NTT affiliate and client

PhonePe

Top tier digital payment app in the Indian market

- Deployment of Liquid Immersion Cooling (LIC) and Direct Contact Liquid Cooling (DCLC) for state-of-the-art high-density cooling
- Provides increased thermal efficiency: Lower PUE (power usage effectiveness) levels
- More efficient cooling means increased server life equals less waste and cost for the client
- Cooling efficiencies offer additional cost savings advantages

NTT's Major Cable Network



NTT has established a strong eco-system in India

NTT has the largest market share in India and has capitalized on its market leading position delivering sustained growth underpinned by its broad customer base

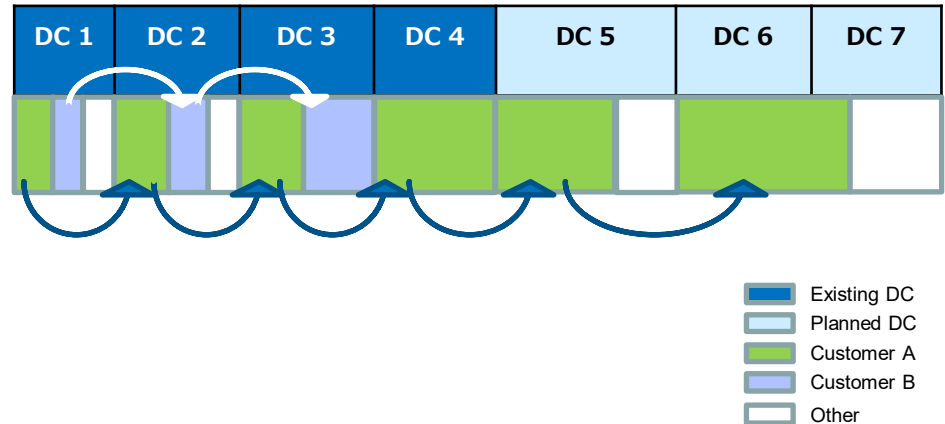
Data Center Location in Mumbai Area

- Hyperscalers tend to have DCs in each zone for BCP purpose
- NTT is the only DC provider who can provide services in all zones in Mumbai



Mumbai Campus Expansion

- Continuous demand for expansion from existing hyperscaler customers as well as enterprises seeking private cloud capacity



JKT2 Data Center – Affiliate Synergies in Action



NTT provides a wide range of value-add & managed services



1 Enterprise Clients: >50 enterprise clients customers including NTT Data partnered solutions



2 Hyperscale Clients & Cloud Access: Private connect with multiple cloud providers



3 Managed Service: SD-WAN, Managed Private Cloud, Managed Cloud



4 Networking & Connectivity Carrier / IX inter-connection Hub, NTT GIN and Arcstar PoPs, with direct connectivity to APRICOT



5 NTT Global Data Centers: The digital infrastructure layer upon which these applications sit

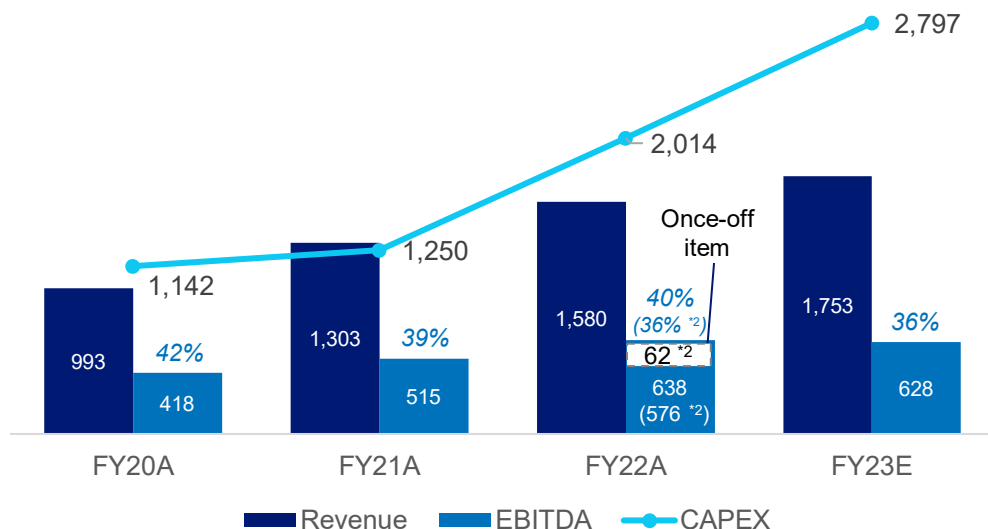
Financial Snapshot

NTT GDC Financial Snapshot



Sustained Investment in data center expansion continues to yield above market growth

Global Financials (\$M) ^{*1}



NTT has delivered above market revenue growth at a 26% CAGR

Uptick in capex as NTT seeks to capture insatiable customer demand

Bold commitment to JPY1.5tn expansion paves the way for robust future revenue growth

EBITDA remains on an upward trajectory as portfolio stabilizes

^{*1} Exclude Hong Kong and Japan business which is currently managed by NTT Com. Figures on this slide are managerial accounting figures that intend to present financial performance of NTT Ltd's data center business unit. Figures include certain intercompany transactions with NTT and NTT Data Group subsidiaries and common cost allocation between data center and other business units of NTT Ltd.

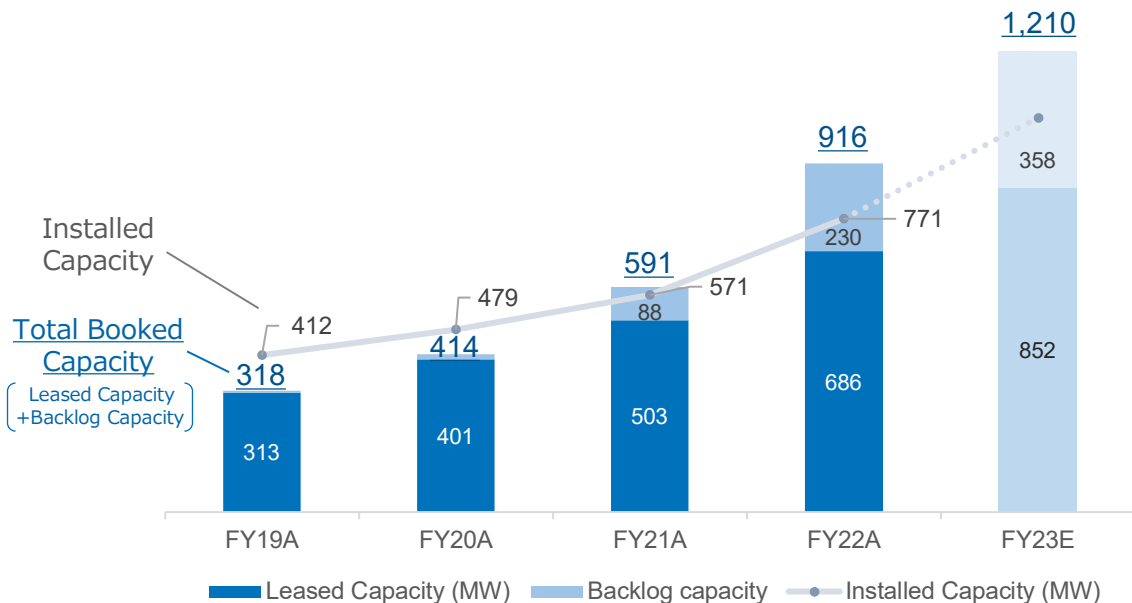
^{*2} Once-off item in FY22 is build-to-suit transactions. Figures in parentheses exclude the once-off item.

Bookings and Capacity Evolution



Leasing momentum continues with bookings significantly outstripping capacity

Total Bookings vs Installed Capacity (MW) *1



Installed Capacity has grown at a 23% CAGR due to sustained investment program

Total Booked Capacity growth has outpaced capacity growth at a 42% CAGR

Bookings now exceed installed capacity as prevalence of pre-lets increases

Healthy bookings backlog gives line of sight on future revenues and de-risks development program

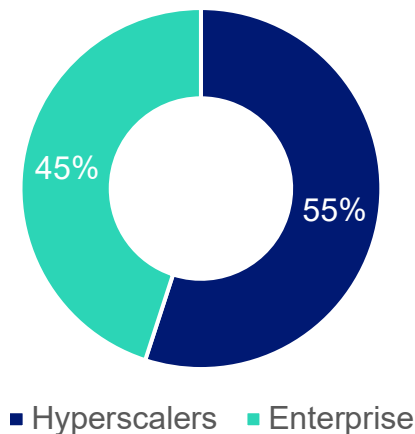
*1 Exclude Hong Kong and Japan business which is currently managed by NTT Com.

Customer Mix and Revenue Distribution

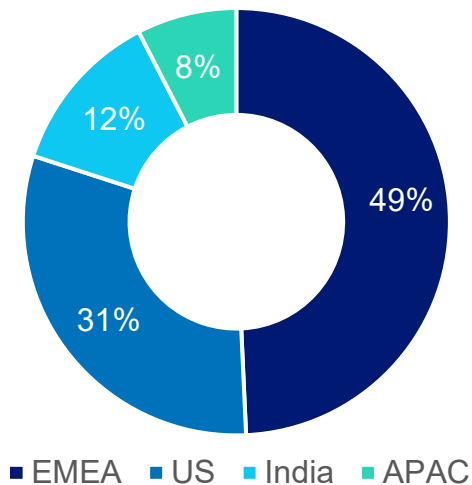


Balanced customer base and broad geographic exposure underpin diversified revenue base

Global Revenue Share
by Service
(FY2022) *1*2



Global Revenue Share
by Region
(FY2022) *1*2



NTT GDC serves over 1,700 customers across its global portfolio

Balanced mix of hyperscale and enterprise customers with surge in AI-driven demand in both segments

Customer base covers diverse range of sectors including telcos, SME's, content, govt, financial & healthcare

Occupancy trending upwards above peer group at 96%

*1 Exclude Hong Kong and Japan business which is currently managed by NTT Com. Figures on this slide are managerial accounting figures that intend to present financial performance of NTT Ltd's data center business unit. Figures include certain intercompany transactions with NTT and NTT Data Group subsidiaries.

*2 Include proceeds from build-to-suit transactions.

Capital Strategy

Capital Recycling and Funding Strategy



NTT GDC to bolster and diversify capital structure to deliver on growth prospects

Commitment to Investment



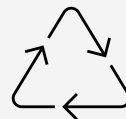
- NTT has committed **JPY 1.5 trillion** for investment into data centers **through to FY27**
- This will allow us to **remain agile** in order to capture opportunities in this dynamic market
- As customer demand continues to surge, availability of **capital to service this is becoming an important differentiator** in the sector

Joint Ventures



- NTT continues to exploit private institutional capital establishing a **number of existing joint venture partnerships** across Asia, India and Europe covering a mix of strategies
- This has allowed NTT to **recycle capital on de-risked assets** and amplify its balance sheet with external capital to extent its operational footprint

Long Term Capital Recycling



- As the demands for capital investment intensify, **NTT will look to periodically harvest profits** via selective divestments which can be undertaken through a range of potential structures which **NTT is actively evaluating**
- Capital proceeds can be utilised to **re-balance the group's capital structure** and be **redeployed into strategic growth areas**

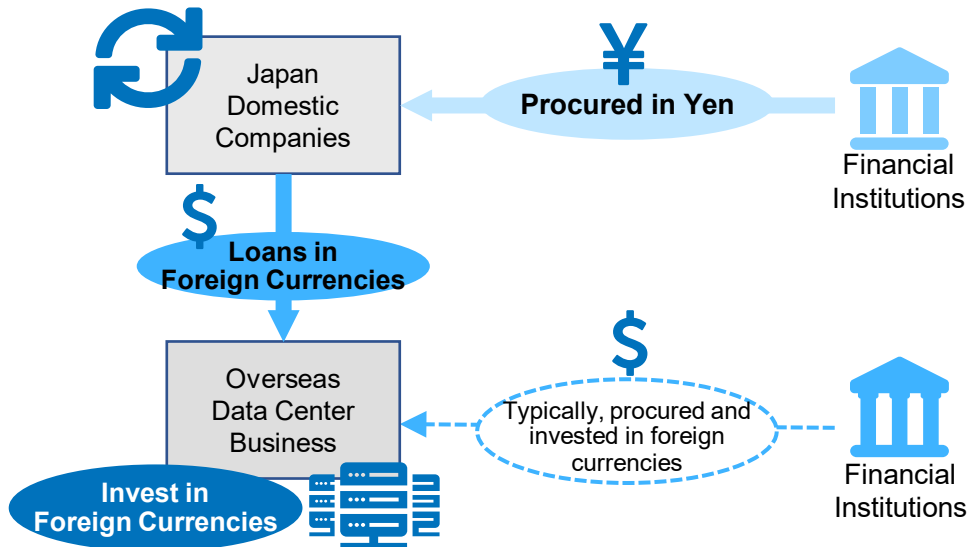
Reduction of Financing Costs

NTT continues to develop funding methods to reduce financing costs amid a rising interest rate environment

Illustration of Yen-Carry Trading

Conversion from Yen
to Foreign Currencies

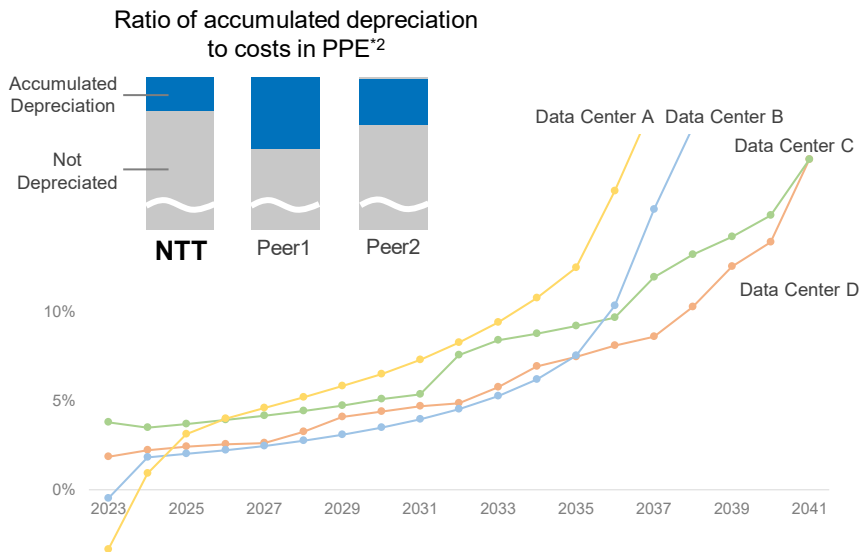
- Procure funding in low-interest yen and invest in overseas data centers in foreign currencies
- Utilizing inverted yield foreign currency market interest rates (partial conversion to fixed interest rates)



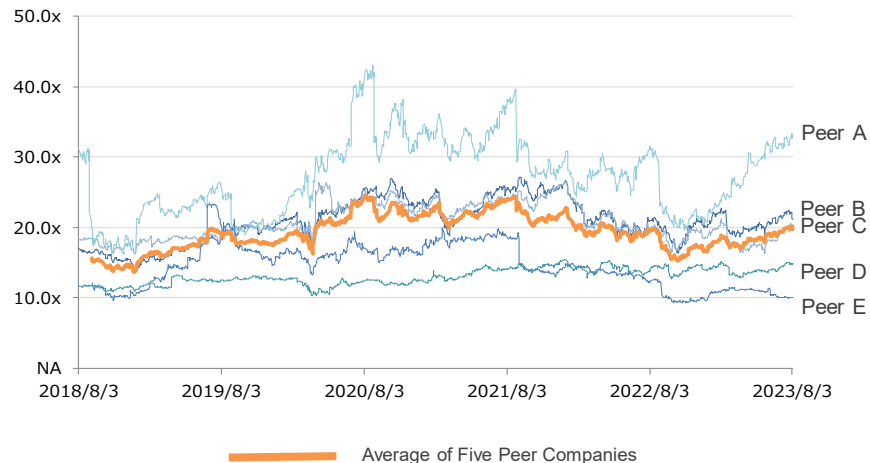
ROIC and Value Creation

- The ROIC of each data center will steadily improve in the long term
- EV/EBITDA multiple for public data center peer group is currently around 20x

ROIC*1 Forecast of Sample DCs



Historical Multiple (EV/EBITDA)



*1 Operating Income \times (1-tax rate) divided by total of net debt and equity

*2 PPE: Property, Plant and Equipment, As of the end of FY2022

Source: FactSet