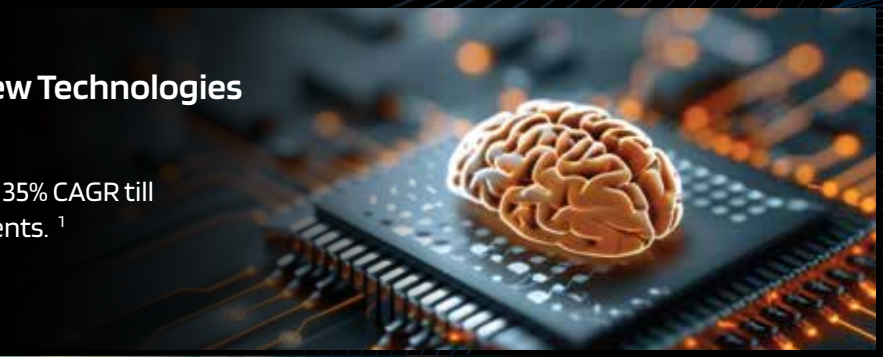
TECHNO
DATA CENTER

Building India's Largest Network Of Data Centers

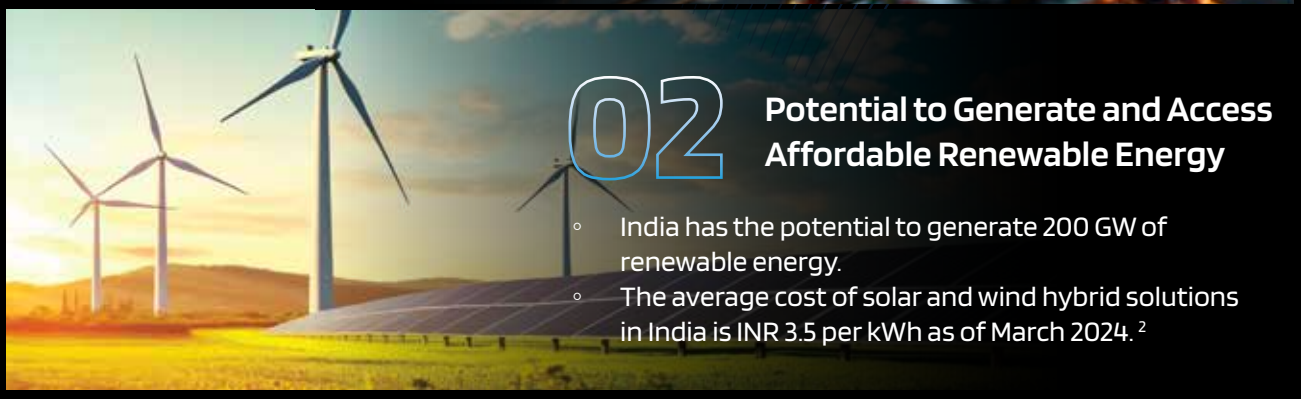
India's future data center demand

By 2030, India's requirement for data centers is expected to reach 17 gigawatt (GW) [0], underscoring the urgent need for robust, scalable, and sustainable infrastructure. Several factors are fueling this demand, including:



01 Adoption of New Technologies - AI, ML and IoT

India's AI market to grow at 25% to 35% CAGR till 2027 due to AI talent and investments. [1]



02 Potential to Generate and Access Affordable Renewable Energy

- India has the potential to generate 200 GW of renewable energy.
- The average cost of solar and wind hybrid solutions in India is INR 3.5 per kWh as of March 2024. [2]

03 Accessibility of Mobile Data

India data charges at INR 13/GB, one of the cheapest in the world, have increased the number of internet users to 900 million in 2023. [3]

04 Data Localization

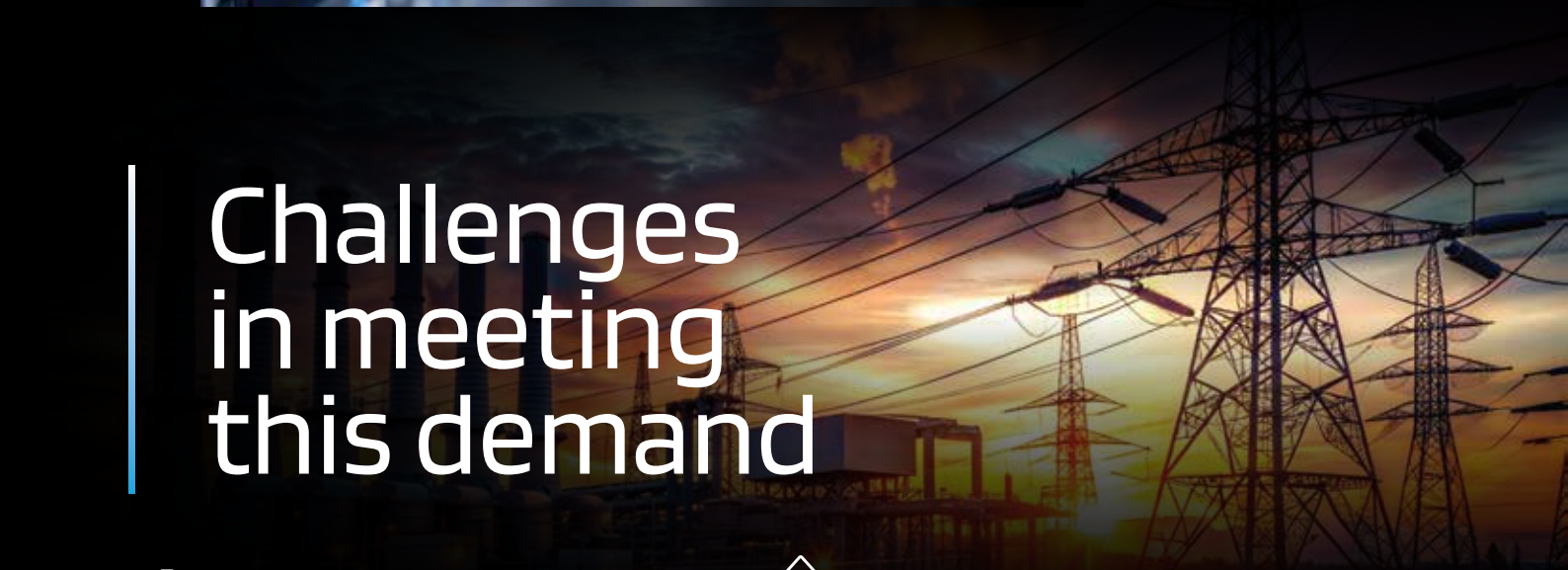
Government policies like the Digital Personal Data Protection Act (DPDPA) are mandating data localization.

05 Increasing Digital Adoption in Tier 2 and Tier 3 Cities

- India's e-commerce market is expected to reach $325 billion by 2030 from $60 bilion in 2023, driven by 500 million shoppers and greater internet access.
- 60% of this demand will be from tier 2 and tier 3 cities. [4]

06 Government Digital Initiatives

- 320 million Digilocker users, 7.76 Billion documents in digital storage
- 350 million UPI users, 108 billion transactions
- 100 million orders on ONDC boosting digital commerce by connecting small businesses to digital platforms
- Other Promising Frameworks
  - DEPA – Empowers users to control and securely share personal data with consent.
  - OCEN – Makes micro-loans accessible, bringing credit to small borrowers.
  - UHI – Integrates health data across providers for seamless healthcare access.[5]



Challenges in meeting this demand

- Massive power requirement in operating data centers
- High operational costs associated with data centers
- Challenges in sourcing sustainable and renewable energy and power for data centers
- Varying power density in data centers due to adoption of new technologies
- Lack of reliable network
- High carbon footprint due to power consumption

[0] **Source:** ET News
[1] **Source:** BCG & NASSCOM report titled "AI-Powered Tech services – A roadmap for future-ready firms"
[2] **Source:** Institute for Energy Economics and Financial Analysis
[3] **Source:** Cable.co.uk
[4] **Source:** IBEF E-commerce Industry report August 2024
[5] **Source:** Indiastack, NPCI, Sahamati and Yourstory research

The answer to India's growing demand

Techno Data Center

Techno Data Center (TDC), an offshoot of Techno Electric & Engineering Co. Ltd.—a leader in the power sector—is developing the digital infrastructure of data centers in India.

The goal

Build interconnected data centers over reliable network for lowest latency across India

Become a one-stop solution provider of data center services

Ensure reliable, affordable, and accessible power for the data centers

Source renewable energy at competitive prices, reducing operating cost and carbon footprint

Backed by the experience of our parent company

Techno Electric & Engineering Co. Ltd.

Techno Electric & Engineering Company Ltd. (TEECL) stands at the forefront of India's power sector, bringing over 40 years of distinguished experience to the table. We excel in Engineering, Procurement, and Construction (EPC), alongside asset ownership and comprehensive operations and maintenance services. Our deep expertise encompasses three vital segments: power generation, transmission, and distribution. With our solid understanding of the industry's complexities, we consistently provide innovative and effective solutions that drive success and efficiency in the power landscape.

500 Professionals
in Team (Engineering, Commercial, Graduates, Post-Graduates)

400 + Projects
Completed since inception

BSE, NSE Listed
Market Cap: US $2.2 Billion as on 30th Sept 2024

40 + Years
Rich experience in the Power sector

Stable Credit Rating
AA Long Term
DEBT Free Company

Achievements

- Involved in establishing NTPC's first power station in Shaktinagar
- Participated in nearly all NTPC power station installations
- Built over 50% of PGCIL's substations (160/276 substations bear the mark of TE)
- India's first independent power producer to develop 207.35 MW of renewable energy projects
- Registered renewable energy projects under the UNFCCC for carbon credits

As of June 2024, actively executing projects worth over USD 1 billion. Projects include Transmission projects, Advanced Metering Infrastructure, and FGD Plants.

Milestones

1980
Launched EPC Services

2009
Became the First IPP in India to Develop Wind Energy Generating Capacity

2010
Became the First Private Transmission Utility to Own and Operate Transmission Assets Under PPP Model

2019
Launched EPC Services for FGD Projects

2021
Forayed Data Centers

2022
Forayed into Advanced Metering Infrastructure (DBFOT Model)

Vision

Enable every individual with access to the latest technology by delivering equitable and accessible digital infrastructure.

Mission

To develop a robust, compelling, and sustainable network of Edge Data Centers, seamlessly interconnected with Hyperscale Data Centers across the nation.

FY 2025

Data Center in Chennai with 36 MW capacity

FY 2027

Data Center in Kolkata with 20 MW capacity

FY 2025 – 29

102 Edge Data Centers in Strategic Partnership with RailTel Corporation of India, a Navratna PSU.

Chennai Data Center

A beautiful data center facility

With a built-up area of **~25,000** square meters, the beautifully designed data center can accommodate 2408 racks with a capacity of **36 MW**.

Key features

G+4 Building

Tier-III Compliant Design

Water Cooled Data Center with Adiabatic Cooling Towers

BESS Enabled Backup of 8 Minutes

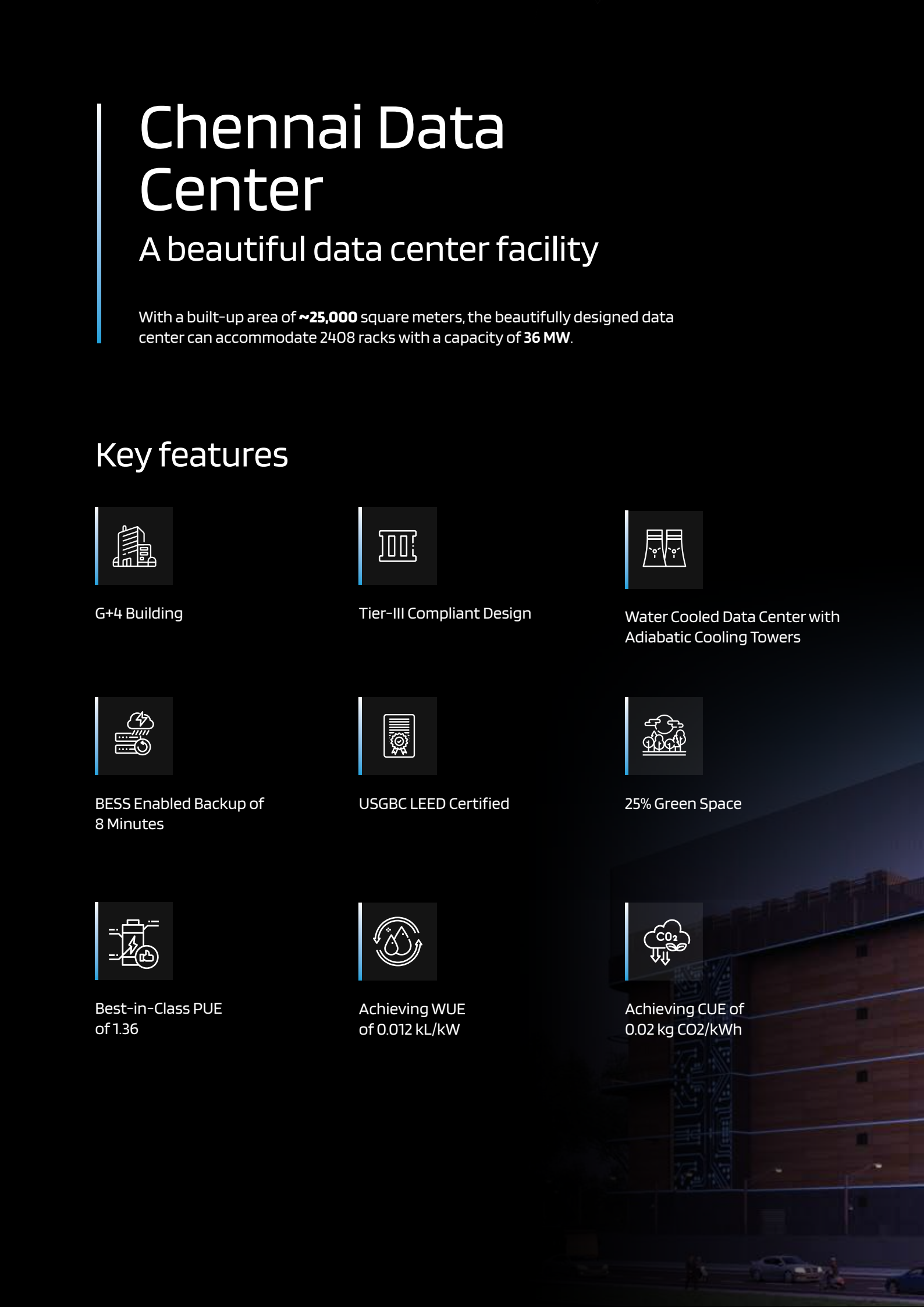
USGBC LEED Certified

25% Green Space

Best-in-Class PUE of 1.36

Achieving WUE of 0.012 kL/kW

Achieving CUE of 0.02 kg CO2/kWh



Design Features

Electrical

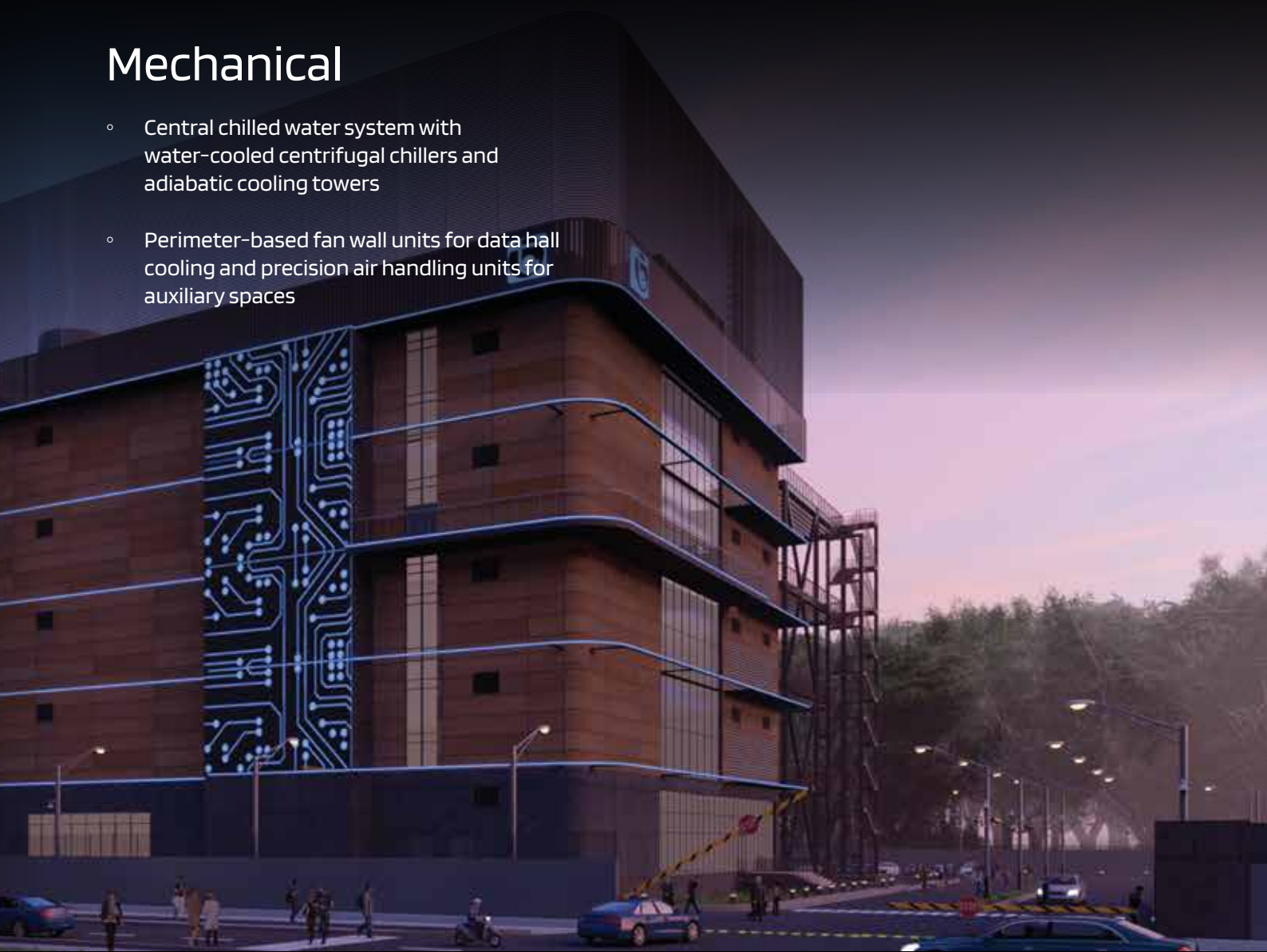
- Average power density of 10 kW/rack supplied by power at 110kV from two distinct substations
- 132 gas-insulated substation and two 50/40 MVA 110kV-11kV substation transformers
- Intermediate power distribution at 11 kV, with distribution within the building at 0.415kV three-phase
- Equipped with 27 diesel generators of 2.25 MVA each
- Modular UPS system with approximately 8 minutes of backup
- Data halls are distributed with 415/230 V PDUs

Façade and Landscape

- Quadra Clad Honeycomb Panels for superior durability, energy efficiency, and aesthetic appeal
- Perforated sun louvers integrated into the façade facilitate optimal air circulation for the cooling towers, improving the efficiency of our cooling systems
- Serene water fountain and open area theater for gatherings and relaxation to foster a collaborative environment
- The landscape features 1,000 plants, 50 trees, and 15,000 shrubs strategically positioned to lessen cooling loads and improve energy efficiency

Mechanical

- Central chilled water system with water-cooled centrifugal chillers and adiabatic cooling towers
- Perimeter-based fan wall units for data hall cooling and precision air handling units for auxiliary spaces



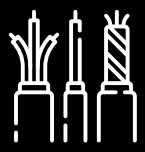
Edge Data Centers

Distributed Network of Data Centers

TECHNO Electric & Engineering Co. Ltd. and **RailTel Corporation of India Limited**, a **"Navratna" PSU**, strategically partnered to develop a **Nationwide Distributed Network** of **102 World-class Data Centers**.

These services will be spread across **23 out of 28 states** in India, serving 40% of the population at just millisecond latency, enabling our customers to reach 515 million people.

Enabled by



70000 km of **high-capacity network** covering the length and breadth of India, through a strategic partnership with RailTel Corporation of India Limited.

Access to **Sustainable, Affordable, and Most Reliable sources of power**

Strategically located in densely populated areas of each city

A seamless hybrid ecosystem of Edge Data Centers interconnected with our Hyperscale Data Centers in Chennai, Kolkata, and MEITY empaneled RailTel Cloud Data Centers in Gurugram, Delhi NCR and Secunderabad, Telangana providing:

Real-time Data Processing at the Edge

Advanced Networking and Security

Scalable Edge, Private, Hybrid, Sovereign Cloud Solutions

Customized Enterprise Solutions

Support for AI, ML, AR, VR, and IoT Applications

Comprehensive Disaster Recovery Plans

Kolkata Data Center

In construction phase

In order to meet the growing demand in data center capacity, Techno Data Center plans to establish a state-of-the-art data center in Kolkata with a projected capacity of **20 MW**. This facility will be a significant addition to the region's digital infrastructure.

Your trusted partner for reliable and scalable data center solutions

1. Build-to-Suit Solutions

At Techno Data Center, we offer comprehensive build-to-suit solutions, taking care of every aspect of your data center project, from land acquisition to final commissioning, including sourcing of reliable, affordable, accessible, and sustainable power to meet the most complex energy requirements.

Key benefits:

- Renewable Energy at Competitive Price
- High Reliability and Zero Downtime
- Enhanced Security
- Advanced Connectivity
- Compliance and Regulatory Adherence
- Flexibility
- Speed to Market
- Energy Efficiency and Sustainability
- Strong Project Execution
- End-to-End Ownership

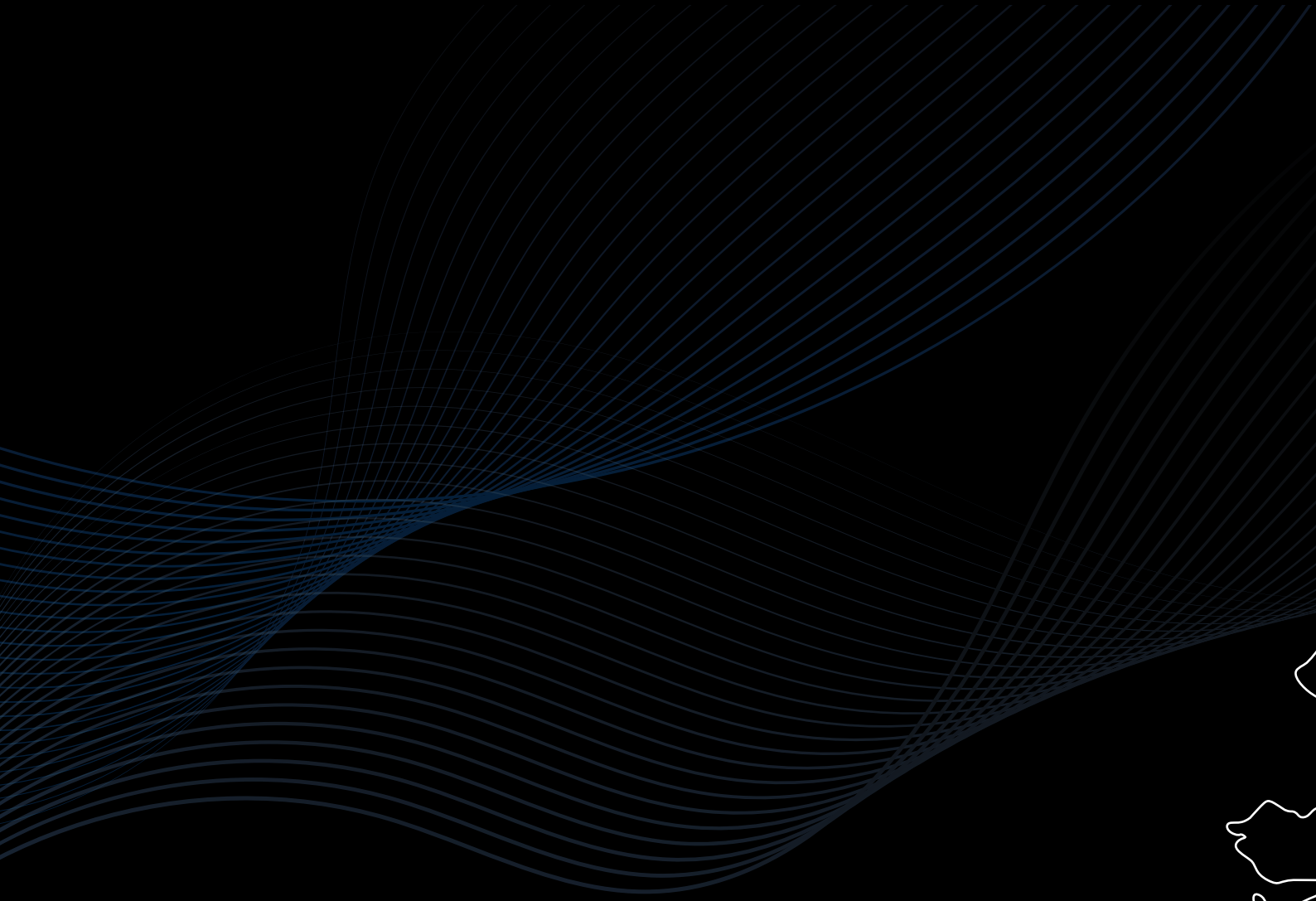
2. Colocation Solutions

If you prefer to own your hardware but need a reliable and secure environment to operate it, our colocation solutions are the perfect choice.

Key benefits:

- Interconnected with Our Hyperscale Data Centers in Chennai, Kolkata, and MEITY Empaneled RailTel Cloud Data Centers in Gurugram, Delhi NCR and Secunderabad, Telangana
- Highest Operational Efficiencies due to Best-in-Class PUE, CUE, and WUE
- Carbon Neutral
- Reliable Power
- Improved Network Connectivity
- Advanced and Efficient Cooling Systems
- Superior Aesthetic and Professional Environment
- Private and Collaborative Workspace Solutions
- Advanced Presentation and Meeting Facilities
- Exceptional Amenities for Comfort and Convenience
- Open Area Theatre and Extensive Green Space
- Significant Cost Reduction
- Increased Operational Efficiencies

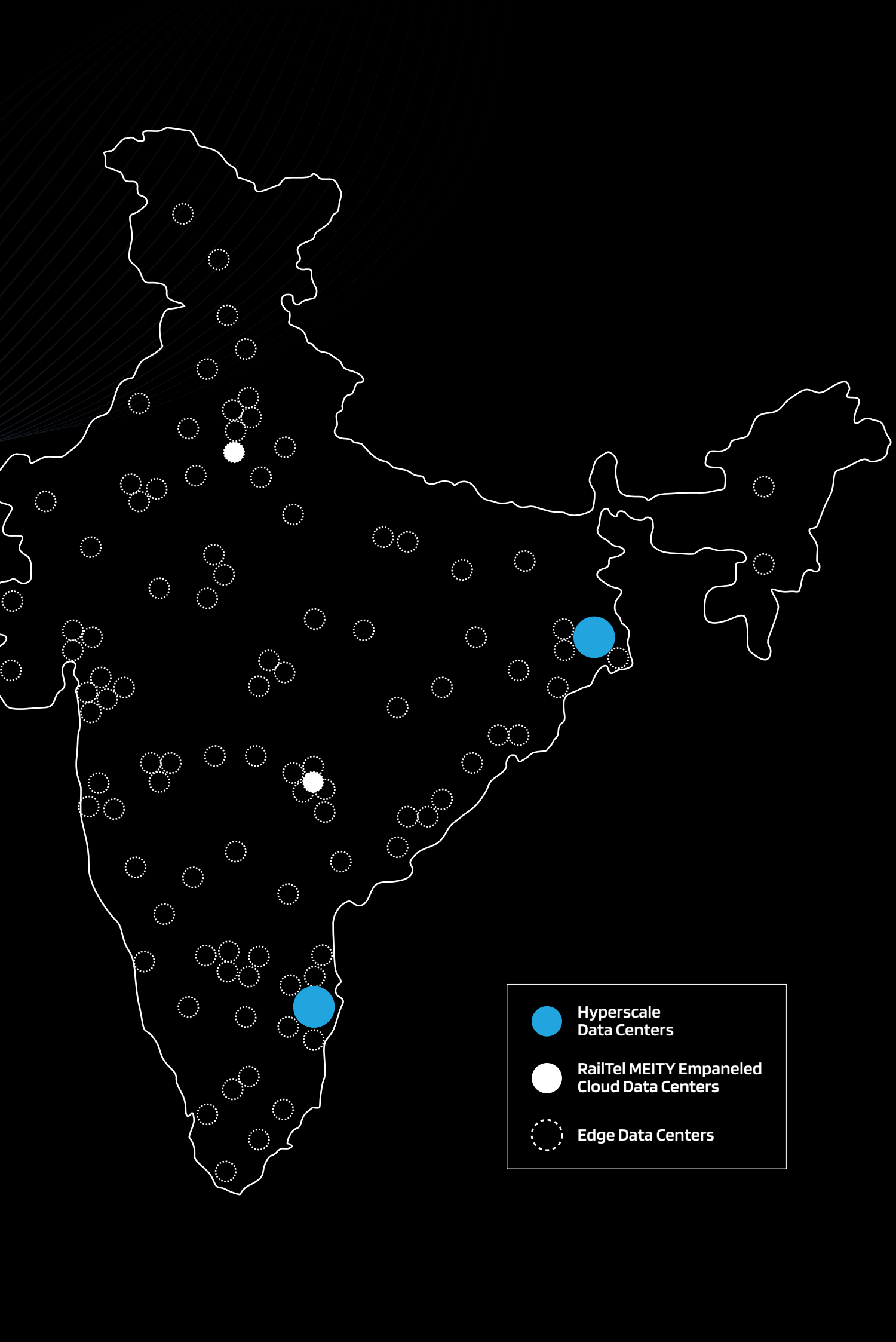
Techno Data Center is committed to providing state-of-the-art, future-ready solutions backed by the best digital infrastructure, promoting collaboration and employee well-being.



Our Promise

We will make a world-class network of data centers because we are **passionate**.

Passionate about Design, Engineering, Execution, and Our Mission: **Data for ALL.**


Hyperscale
Data Centers
RailTel MEITY Empaneled
Cloud Data Centers
Edge Data Centers

Reach out to us.

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