Market Research

Data Centre Market in India and Outlook Till 2025

Opportunity Examination for Key Value Chain Players, Power Distribution Companies & Renewable Energy Developers

Techno Electric & Engineering Company planning to invest USD 1 Billion developing datacenters across major Indian cities

Globally, more than US$ 100 billion has flowed into the data center ecosystem from FY10 to FY20. This has seen investments from host of participants including pension funds, private equity firms, sovereign wealth funds and many other types of organization who have sensed the potential of sector. Leveraging this capital, the data center industry has expanded at lower cost as many funds have taken ownership positions in new companies rather than focusing of asset-by-asset acquisition. The significant capital influx demanded a transition at an equal pace upon technological levels. Thus, a thrust was seen in shifting workloads off-premises. This was done upon colocation and a mix of colocation and public & private cloud computing. This transition has seen largest cloud platform providers to become the most important players in many global markets and are likely to alter the data center sizing by a factor of 10. India is no different either from this transition. The 10 MW data centers that was sized impressively in FY10 now pales in competition with 30 MW leases that are being signed up.

India is establishing itself as a major presence in the digital economy. From internet connections to app downloads , both the volume and growth of its digital economy now exceeds those of most other countries. Government and the private sector are moving rapidly to spread high speed connectivity across the country and provide hardware and services to put Indian consumers & businesses online. Further, rising mobile penetration is leading to significant data proliferation amongst its consumers. India offers a large base of global users for digital mediums such as social media apps, IOT devices and OTT platforms. With the expected 5G implementation and data localisation norms, need for data storage to be closer to its users gains greater importance, with a view to measure down on latencies. Further, the advent of COVID 19 led to a push for working from remote and home locations which thrusted further the usage of cloud services and video conferencing. Also, a spike in the internet use has been observed more people were using to work, play or stay informed. This led to the data center staff being categorized in the country as essential in the level of mission critical even during lockdown days. Hence, development of data centres holds a good business case in India.

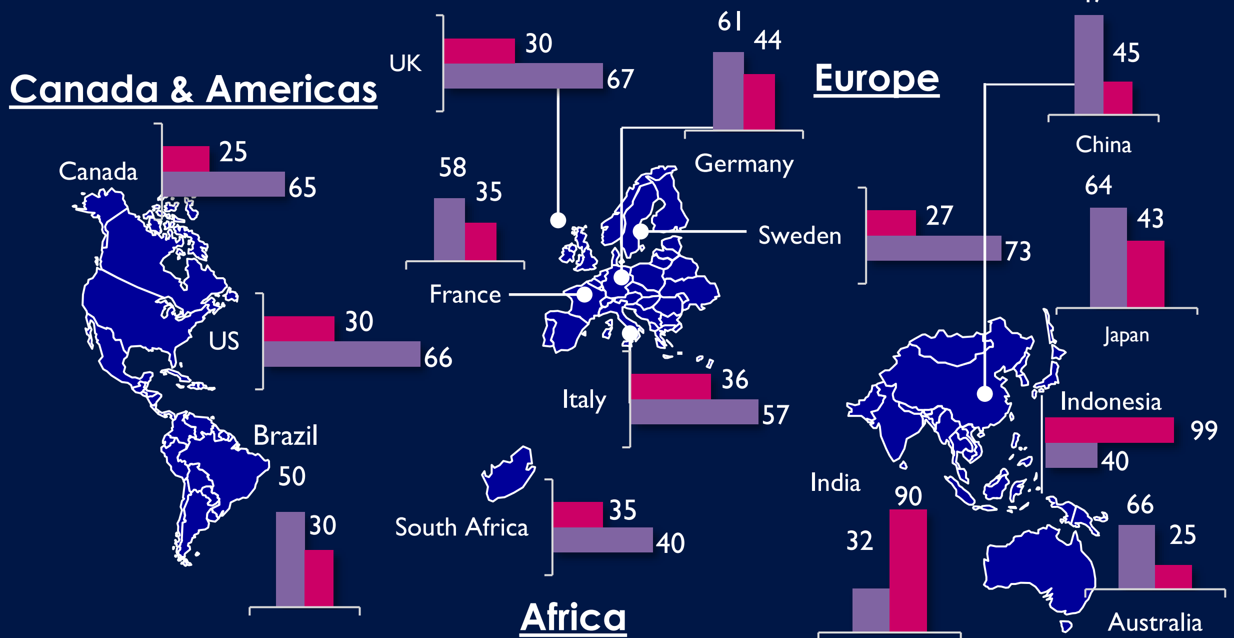
The Government of India has recognised digital infrastructure as an important focus area for sustained growth of India. Certain state governments have already provided incentives to encourage building of large data parks. Implementing a national policy will further augment these initiatives and boost the industry. The first step towards this aim has already been initiated by government with the release of a draft national policy for data centres.

Data centers market in India has observed a good growth over the past decade due to the explosion of data through smartphones, social networking sites, ecommerce companies and government's-initiated projects. In India, the market is dominated by third-party data centre providers like Net magic (NTT Com), CtrlS and telecom firms like Reliance, Tata Communications etc.

Global Digital Adoption & Data Consumption Status in India

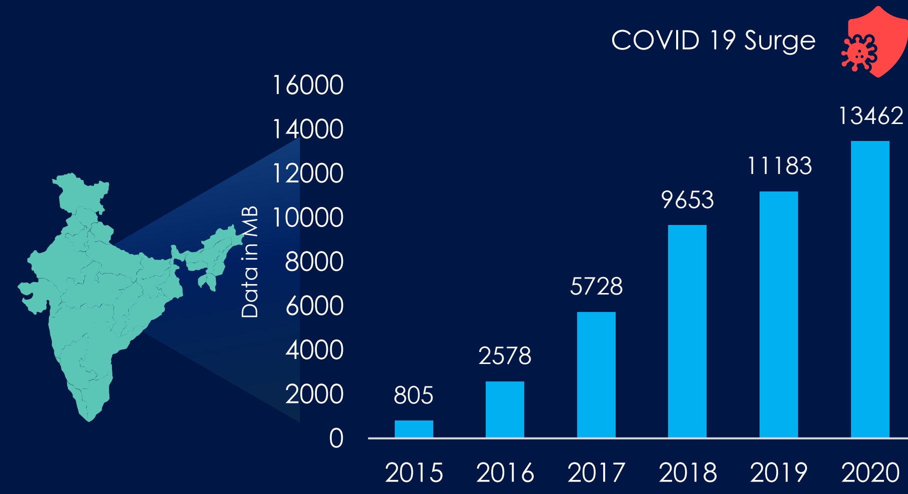
RAC eninrac · MRAC+

Digital Adoption Index & Growth into the Same for Few Major Economies Across the Globe



- Country wise digital adoption index, scale (0-100)
- Percentage growth in Country's digital adoption index

Growth of Data Consumption in India & COVID 19 Push



CAGR of 76% observed from FY15 to FY20. Due to COVID 19 increased online education, remote working for professionals and higher OTT viewership contributed to data traffic growth in FY20.

Data Consumption Snapshot – In Numbers

0.3 GB/user/month
In 2014

13.14 GB/user/month
In 2020

~ 25 GB/user/month
Anticipated by 2025 with an expected total data traffic of 21 EB in the country

India Internet Demographics (2020)

653 Mn Internet Users	637 Mn Active Mobile Users	357 Mn Social Media Users
16% CAGR (2015 -2020)	12% CAGR (2015 -2020)	22% CAGR (2015 -2020)

Source: Eninrac Consulting, TRAI, Akamai State of Internet, International Telecommunication Union, World Bank & Mckinsey

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Key Signpost – India's data center footprint is assessed at 7-8 million square feet. It is probably going to develop to 30 million square feet by 2030 and could maybe cross 100 million by 2060 containing 5,000 edge data centers the nation over. India's datacenter market is expected to be hover around USD 4-5 billion by 2025

It is pertinent to note that the data center IT infrastructure investments including total spending on servers, storage, networking, security and virtualization witnessed a growth of approximately 21.4% from 2015 to 2020. Of the IT infra spending, enterprise networking holds the maximum share, followed by servers. Breakup of their share can be seen in Exhibit 09. Further, within IT infrastructure market in India , spend on servers was estimated to be USD 658 Million during 2015 that hovered around USD 860 Million in 2020. The data center industry in India attracted an investment of USD 396 Million in 2020 and approximately USD 9 Billion was in the planning stage. As per industry estimates, data centers in India received USD 977 Million of private equity and strategic investments since 2008 of which 40% was infused between Jan-September 2020. From a period, Feb'2021 to March'2021, fresh investments of USD 4.6 Billion have been announced in India's data center industry. India Data center Hosting and Colocation market India has been largely dominated by captive data centers with share of colocation increasing over the last decade. From a share of 20% observed in 2010, Colocation data centers presently hold nearly 45% of over all data centers in the country. As per the industry estimates, there are about 126 colocation datacenters in India spread across India spanning across 7.5 Million sq.feet of area with a cumulative IT power capacity above 590 MW.

What's our difference margin for market research?

1 Our Market Research Coverage Range

- Market assessment for value chain players across datacenters as per different tiers & storage requirement
- Market assessment for value chain players as per data center inventory
- Market assessment for value chain players as per underconstruction & planned datacenters
- Analysis of demand and supply metrics of demand – supply of data storage facilities
- Examining the power demand supply dynamics
- Opportunity examination for power distribution companies (DISCOMs)

2 Our Market Research DNA & Team of Domain Specialists

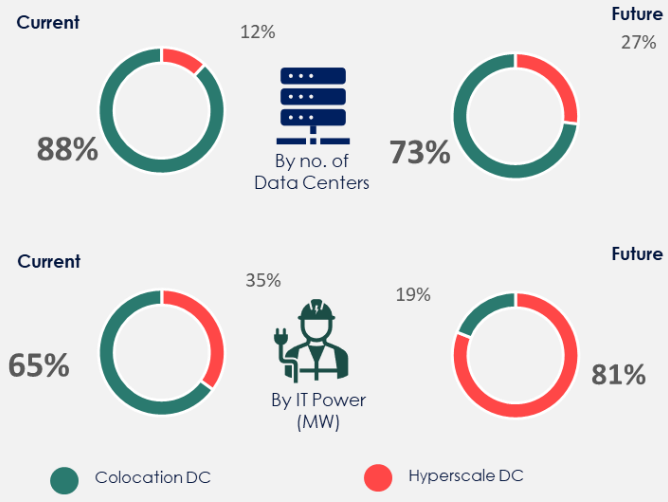
- We boast a highly qualified and experienced team of market research professionals having experience of working in top companies across different domains
- Our focus on nurturing industry connect is paramount which helps us generate high quality robust market feed which is filtered and sourced through from different levels
- Any market research report follows strict turn-around-time procedures with cross-vetting from our Knowledge Grid Experts which adds immense value to our research credentials for the deemed subject

MARKET RESPONSE
eninrac consulting

3 Our Satisfied Patrons and Retention rate of over 97.6% on yoy basis

We have been bestowed with a phenomenal client retention rate and many satisfied clientele. Our client's have been from wide variety of industry domains and from different geographic locations across the globe. Eninrac consulting is a trusted market research partner and an objective resource augmenting value for more than 257+ Group companies & 1000+ organization across 40+ countries.

Demographic Spread for DCs in India



17 Under-sea cables

29 Landing stations

Mumbai & Chennai

Maximum concentration of landing points

By area (sf)

Current Supply#	City	Future Supply
41%	MUMBAI	31%
21%	BENGALURU	6%
10%	DELHI-NCR	14%
10%	CHENNAI	27%
7%	HYDERABAD	18%
5%	PUNE	3%
1%	KOLKATA	1%

Future Supply
Current Supply

Data Center: Facility Tier in India

No. of DCs	Tier	Tier Wise IT Power (MW)
77%	Tier 3	63%
13%	Tier 3+	12%
10%	Tier 4	15%

By IT power (MW)

Current Supply#	City	Future Supply
46%	MUMBAI	31%
19%	BENGALURU	4%
13%	DELHI-NCR	19%
6%	CHENNAI	29%
5%	HYDERABAD	14%
4%	PUNE	3%
1%	KOLKATA	1%

Future Supply
Current Supply

#Current Supply for Tier 2 Cities: 5% of Area (sf) & 6% of IT Power (MW)

NCR Comprises of Noida, Gurugram, Faridabad & Ghaziabad

Source: Eninrac Consulting, Anarock & Channel Checks

Region Wise Datacenter Spread in India

Northern Region

- Almost equal spread for SAN & DAS

Top States

- Delhi, Haryana & Uttar Pradesh

Top Cities

- Delhi, Gurugram, Gautam Buddha Nagar (Noida) & Jaipur

Top Industries

- Telecom
- IT & ITES

Southern Region

- Over 70% of the DCs are SAN based in this region

Top States

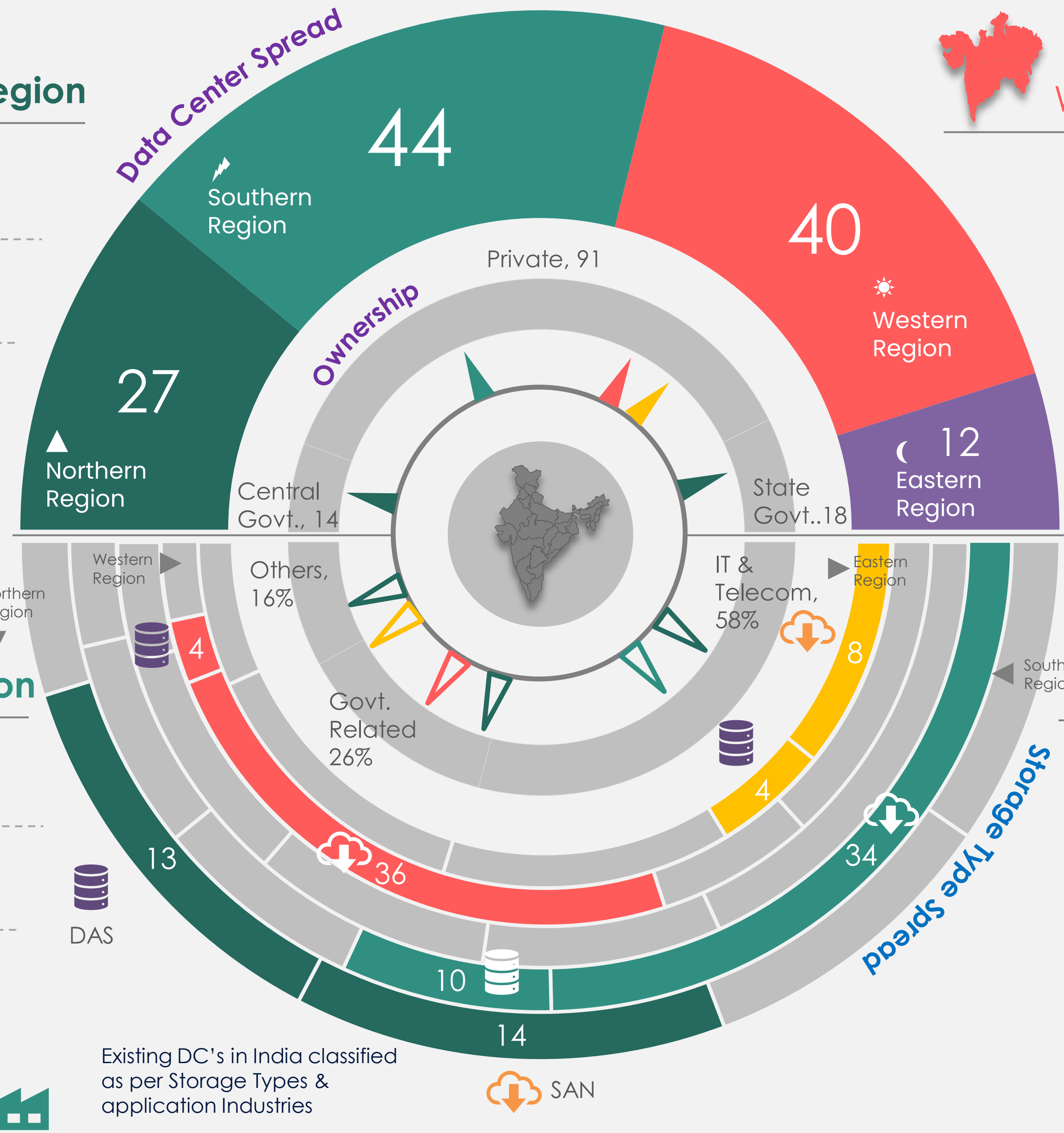
- Karnataka, Tamil Nadu, Telangana

Top Cities

- Bengaluru, Chennai & Hyderabad

Top Industries

- Telecom
- IT & ITES
- Others



Existing DC's in India classified as per Storage Types & application Industries

Western Region

- SAN Dominates in this region with 90% share

Top States

- Maharashtra, Gujarat & Chhattisgarh

Top Cities

- Mumbai, Pune, Nashik, Raipur & Ahmedabad

Top Industries

- Telecom
- IT & ITES
- Govt.

Eastern Region

- 75% of the DCs are of SAN type in Eastern Region

Top States

- Odisha, West Bengal

Top Cities

- Bhubaneshwar & Kolkata

Top Industries

- Govt.
- IT & ITES

Source: Eninrac Consulting & Channel Checks

Business Case – Adani group said it would invest up to INR 70,000 crore to set up solar powered data parks in Andhra Pradesh

India is witnessing a considerable surge in demand for secure data centres as businesses undertake digital transformation and consumer demand for digital services continues to increase. The expansion of hyper scalers across the region following the government's directive on data localization is propelling a lot of this demand, with other market drivers including the growth in user data and increase in cloud penetration. Some of the recent trends in India's data center market by the seasoned players and new entrants are as follows –

- ST Telemedia Global Data Centres (STT GDC), which currently has a capacity of 70 MW spread over 2.14 million square feet and plans to grow further to 200 MW over 4 million square feet, by 2024
- Hiranandani Group announced an investment plan of INR 14,000 crore
- Reliance Industries is partnering with Microsoft to provide cloud services to small and medium enterprises
- Carlyle Group acquires 25% stake of USD 235 million for buying a quarter of Airtel's Nxtra in India, which has 10 large data centres, and more than 120 edge data centres provides customers with co-location services, cloud infrastructure, managed hosting, data backup, disaster recovery, and remote infrastructure management

Why this report ?

India is on the verge of a new digital explosion. As one of the most populated countries in the world, rising mobile penetration is leading to significant data proliferation amongst its consumers. India offers a large base of global users for digital mediums such as social media apps, IOT devices and OTT platforms. With the expected 5G implementation and data localisation norms, need for data storage to be closer to its users gains greater importance, with a view to measure down on latencies. As per the industry estimates, the total 3rd party data centres industry is expected to move from the current 590 MW to ~2000 MW (2GW) - 2500 MW (2.5 GW) by 2023-24. Further, the emerging need of data localisation for data security which means protecting national interest and citizen's right to privacy, which is well taken by the Government of India (GoI) the business case of dedicated data centers in the country is soaring. In this regards, Eninrac Consulting intents to conduct a detailed market research study to examine the opportunities across India's data management and storage infrastructure. The dossier shall present the market opportunities for datacenter value chain players. Further, state wise examination of market opportunity will also be determined for different storage requirement, for different tiers of datacenters, datacenter type wise business examination. Additionally, end use industrial segment with opportunity shall also be tracked. Also, opportunity assessment for DISCOMs, renewable energy developers shall be done in order to cater to the anticipated surge in the power demand shall be done in this study. Under this study, a competitive landscaping and benchmarking shall also be done for both the seasoned players and new entrants along with a rich database of underconstruction/planned/proposed datacenters

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Contents & Coverage – Data Center Market in India and Outlook Till 2025

01 Datacenter market in India & outlook – A know how

The section shall focus upon transformation of India into a digital ecosystem and the surging need for data usage and management. Further, understanding the dynamics of India shaping up as a preferred re-shoring destination for setting up & scaling of data centers shall also be covered in this section

04 Region wise opportunity assessment & outlook till 2025 for datacenters in India – by tier

State wise opportunity examination of datacenters in India for all the regions (NR, WR,ER, SR). The opportunity shall be analyzed vis-à-vis datacenter tiers – Tier I, Tier II, Tier III & Tier IV. The bifurcation of datacenters under these tiers signifies the uptime

07 Region wise opportunity assessment & outlook till 2025 for datacenters in India – by energy utilization

State wise opportunity examination of datacenters in India for all the regions (NR, WR,ER, SR). The opportunity shall be analyzed vis-à-vis energy utilization – (i) small scale DCs (ii) Medium scale DCs (iii) enterprise DCs (iv) Mega/Hyperscale DCs

09 Storage wise opportunity analysis of datacenters in India for distinct industries

This section shall cover analysis of datacenters as per key states in distinct regions in India covering key aspects – market overview vis-à-vis demand , supply , key focal trends, rental rates and average cost of power (INR/kWh) with spread of industries as application used as per storage & extent of such DCs being leveraged

02 Emerging need of datacenters in India – Why there is a business case ?

This section shall cover analysis of examining business case for data centers in India. This analysis shall be purely based upon parametric evaluation and examining key incentives of the government

05 Region wise opportunity assessment & outlook till 2025 for datacenters in India – by location

State wise opportunity examination of datacenters in India for all the regions (NR, WR,ER, SR). The opportunity shall be analyzed vis-à-vis datacenter locations – (i) internet facing i.e., cloud based (ii) enterprise dedicated or captive DCs

08 Examining the existing infra supplies for developing datacenter

This section shall cover examination of existing datacenter supplies in India. This shall be done vis-à-vis (i) existing 3rd party colocation & hyperscale DCs (ii) land availability/coverage (in Mn square feet) for these DCs (iii) Total IT power consumption (MW) (iv) Average IT power/facility

10 Deployment wise opportunity analysis of datacenters in India for distinct industries

This section shall cover analysis of datacenters as per key states in distinct regions in India covering key aspects – market overview vis-à-vis demand , supply , key focal trends, rental rates and average cost of power (INR/kWh) with spread of industries as application used as per deployment & extent of such DCs being leveraged

03 Regulatory & Policy Track Associated to Data Centers

This chapter shall track all the key policies related to the development of datacenters and software technology/IT parks in India. Further, it shall also examine state wise key incentives offered – tax holidays, single window clearances, land availability and related subsidies, subsidized power supply etc. for establishing datacenters/software technology & IT parks. Ease for doing business analysis shall done for key states w.r.t data center development

06 Region wise opportunity assessment & outlook till 2025 for datacenters in India – by ownership

State wise opportunity examination of datacenters in India for all the regions (NR, WR,ER, SR). The opportunity shall be analyzed vis-à-vis datacenter ownership – (i) government managed or SOE managed (ii) privately rented or colocation DCs

11 Offered solution wise opportunity analysis of datacenters in India for distinct states

This section shall cover analysis of datacenters as per key states in distinct regions in India covering key aspects – market overview vis-à-vis demand , supply , key focal trends, rental rates and average cost of power (INR/kWh) with spread of industries as application used as per offered solutions such as – network, server, database & other solutions

Contents & Coverage – Data Center Market in India and Outlook Till 2025

Key Highlights for Market Research on Data Centers Market in India

1. Datacenter tier wise opportunity assessment for players for all the regions (NR,SR,ER,WR)
2. Datacenter storage wise opportunity examination for players for all the regions (NR,SR,ER,WR)
3. Datacenter deployment wise opportunity examination for players for all the regions (NR,SR,ER,WR)
4. Market assessment for hyperscale datacenters in India for all the regions (NR,SR,ER,WR)
5. Market assessment for cloud-based datacenters in India for all the regions (NR,SR,ER,WR)
6. Market assessment for premise datacenters in India for all the regions (NR,SR,ER,WR)
7. Region wise market assessment for solution providers – network, server ,database etc. for datacenters
8. Market assessment for component suppliers and OEMs for data centers
9. Opportunity assessment for EPC players
10. Examining the region wise competitive ecosystem for datacenters

Business Case across Datacenters Market in India

1. New data center policy in India to simplify rules and attract capital. Focus on ease of doing business.
2. Netmagic has planned capacity expansions in Mumbai, Chennai and Bengaluru
3. Adani group plans to invest up to INR 70,000 crore to set up solar powered data parks in Andhra Pradesh
4. Oracle announced the launch of its Gen 2 Cloud region in Mumbai, with another planned in Hyderabad
5. STT GDC which currently has a capacity plans to grow further to 200 MW over 4 million sq ft, within three years
6. Reliance industries partnering with Microsoft to provide cloud services to small and medium enterprises
7. Carlyle Group acquires 25% stake of USD 235 million for buying a quarter of Airtel’s Nxtra in India

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Data Center Market in India and Outlook 2025 – Opportunity Examination for Key Value Chain Players, Power Distribution Companies & Renewable Energy Developers

Must Buy For

- Datacenter Developers
- EPC players
- Building management solution providers
- Data center service/solution providers
- IT infrastructure providers
- Support infrastructure providers
- Smart Cities Developers
- DISCOMs
- RE Developers
- Investment Banks
- Funding Bodies

For Queries

For any queries regards the report, write to our team – connect @eninrac.com

For market research & advisory requirement, write to our team – nsharma@eninrac.com

You may also contact us at +91 7290016953/54

Companies Mentioned

- Nxtra Data
- Adani
- Reliance
- L&T
- Siemens
- Rockwell
- Honeywell
- NTT
- Bharti Airtel
- Tata
- AtoZ
- IBM
- NxtGen
- Schneider Electric
- ABB
- Delta

> Truth is ever to be found in the simplicity, and not in the multiplicity and confusion of things
> **– Sir Isaac Newton**

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Contact – Head Office

Address : 5th floor, Caddie Commercial Tower, Aerocity (DIAL), New Delhi - 110037

Contact – NCR Office

Address : 7th Floor, I-Thum Towers, Noida, NCR Region, Uttar Pradesh, India

Contact – Mumbai Office

Address : 4th Floor Duru House, Juhu, Opposite JW Marriott, Mumbai, Maharashtra

connect@eninrac.com +91 72900 16953/54 www.eninrac.com