

Sify Technologies Limited

Comments on

Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India

Governments Digital India Mission has transformed India into a fast-growing DATA CENTRE hub. A report on the Indian data center market by Arizton Advisory and Intelligence estimates that the industry will grow at a CAGR of 12 percent until 2026. Through the Governments Digital India Mission a conducive atmosphere is created for the growth of Industry.

A large and still growing internet userbase, the explosion of data is the key. Amidst of all this, the most exciting fact is that this industry is at the very beginning of a larger growth journey.

Main Challenge:

Availability of uninterrupted, clean, and cost-effective electricity for Data Centres remains as one of the challenges.

Few Suggestions:

- Creation of DATA Centre Parks/ Special Economic Zone where DATA Centre Parks to set up own power Generation Units for an uninterrupted power supply.
- Mechanism to be established to ensure a long-term availability of Power at a reasonable price.
- Enable open access system for DATA Centre to procure power from any of the Generation Units which includes Renewal Energy Units
- Uniform Subsidy to be enabled across India for the use of renewable Energy and for the reduction of Carbon footprints
- Formation of Steering Group comprising of Power Ministry, Ministry of IT and Telecom and State Government to identify various mechanism to ensure Quality power supply for DATA Centre.

Other Challenges:

- Right of Way for Network Routes and Connectivity
- Availability of Sufficient Water
- Electronic waste management policy and necessary support through local pollution control boards
- Cost – Duty waivers e.g.
 - Capital Subsidy
 - Land subsidy
 - Exemption of Stamp Duty, concessional registration rates

How to Attract Globale Players?

As per the forecast of JLL the data centers are expected to present a \$4.9 billion investment opportunity in India, leading to a three-fold growth of the country's data center capacity by 2025.

While 2021 saw the explosion in cloud adoption owing to the accelerated digital transformation, 2022 will again witness the rise in migrating to the cloud as flexibility, scalability, and cost considerations will take precedence. According to Gartner, end-user spending on public cloud services in the country is forecasted to grow by another 30 per cent in 2022.

It is important to attract Global Players through Ease of Doing business Strategy. India's strategic importance to attract Global Players should be focussed through availability of high bandwidth speed, low power tariffs, state-of-the-art infrastructure and the presence of hyperscalers.

Industries to collaborate with colleges in creating Centres of Excellence (CoE) in research on data technologies for a skilled Manpower requirement.

Enabling ease of doing business – For a robust and sustainable growth of **Data Centre infrastructure** in the country, certain reforms need to be made. These include providing infrastructure status to the Data Centre sector, simplifying clearance procedure for setting up **Data Centre Infrastructure** in the country, setting up pre-provisioned Data Centre parks, and schemes and guidelines for incentives in this sector.

Enabling ecosystem for Data Centre architecture – It is very important to create a congenial, competitive, and sustainable operating environment for the long-term growth of the Data Centre sector in the country. Some of the key focus areas are – provisioning of uninterrupted power supply, encouraging the use of renewable energy, efficient utilisation of energy through innovative techniques for reducing carbon emissions, and recognizing Data Centres as a separate category under the National Building Code.

Data Centre and the Construction Market

Presently, the size of data center market in India is pegged at around USD 7 billion. This, when compared with other western countries appears to be relatively marginal and accounts for just 3.5% share of the global market size – denoting India's nascent position on the world map.

However, given the increasing significance of the sector in the recent period, data centres hold vast potential as an alternative real estate asset, especially when it comes to large infrastructure investors who are looking at long-term yield income.

In addition to investors, these data centres have also proven to be attractive to both operators as well as developers. While companies such as ST Telemedia Group and NTT Japan already have their data centres in India, other global players such as Colt, Princeton Digital Group and Ascendas Capital have plans to enter the Indian

market as well. Several large real estate developers in India have also implied plans of developing data centre projects.

The development of these data centres would significantly help augment employment generation in the country, particularly for skilled workers and engineers. Not only would it generate jobs directly in construction and operations, but there are also marked employment prospects in supply chain and consumer communities as well. As per the Data Centre Draft Policy by the Ministry of Electronics and Information Technology, Government of India (MeiTY), a minimum of four Data Centre Economic Zones (DCEZ) across India have been proposed. Under this central sector scheme, these zones will offer an ecosystem for hyper-scale data centres, cloud service providers, IT companies, R&D units and other allied industries to function in tandem with one another.

These zones will offer highly favourable infrastructure, both IT and non-IT, complete with equally conducive connectivity, power, and regulatory environment. With research estimates portending the creation of 5 ancillary jobs in the economy for every data centre employee, the construction industry stands to gain substantially from the development of these data centre zones. With more developers entering this arena, it will also provide impetus to a large presence of construction contractors and sub-contractors, especially with respect to installation and commissioning services, including Engineering and Building Designs, Core and Shell Development, Physical Security, Data Centre Infrastructure Management (DCIM), and Building Management System (BMS) amongst other aspects.

DATA Centre Parks/DATA Centre SEZ

Creation of DATA Centre Parks/DATA Centre SEZ would help to achieve the following objectives:

Enable Uninterrupted power, land & High Speed connectivity infrastructure for Data Centres

Provide fiscal and non-fiscal incentives to Data Centre developers and operators to boost investment in the Sector

Support research & development, innovation, and entrepreneurship

Enable appropriate institutional measures and supportive technology framework

Promote usage of renewable energy for day-to-day operations.

Encourage cloud computing & emerging technologies

Promote green Data Centres

Best Practices:

Here's a sneak peek of the trendiest reports:

1. India Data Center Market - Investment Analysis and Growth Opportunities 2021-2026

[India data center market](#) size will witness investments of USD 8 billion by 2026, growing at a CAGR of 12% during 2021-2026. Arizton has identified about 79 unique data center facilities and 23 upcoming facilities in India.

Due to the COVID-19 lockdown, India has witnessed a growth of over 30% in internet usage consumption. The demand for data centers has gone up due to increase in access to internet-related services by organizations across various sectors. In 2020, in India, the top three states cumulatively added more than a million square feet of data center space. Maharashtra is adding the highest area, followed by Tamil Nadu and West Bengal.

Key Highlights:

- In Q3 2020, the data center market witnessed a strong spike in announcements related to new projects across India. The major demand for data center capacity during the COVID-19 pandemic ensued from cloud-service providers.
- Adani Group has planned to set up the hyperscale facility Adani Chennai-1 with the investment of around USD 340 million in Chennai.
- According to Ericsson, in India, the total 5G connections will be around USD 350 million by 2026.
- In 2020, the Tamil Nadu data center market witnessed investments from colocation service providers, telecom operators, and government entities.
- Chennai is the leading submarine cable landing station in Southern India, which attracts a higher number of data center investors.
- ST Telemedia Global Data Centres India has planned to construct a greenfield data center campus in Noida with an investment of over USD 150 million.

2. Vietnam Data Center Market - Investment Analysis & Growth Opportunities 2021-2026

[Vietnam data center market](#) size will witness investments of USD 673 million by 2026, growing at a CAGR of 8.18% during 2021-2026. Arizton has identified about 21 unique data center facilities and 3 upcoming facilities in Vietnam.

In Vietnam, major telecommunication providers such as FPT Telecom, HTC International Telecommunication (HTC-ITC), VNPT, and Viettel Networks are investing in data center facilities. In 2020, Vietnam received an investment of around USD 420 million in data center facilities by FPT Telecom, across Da Nang, Hanoi, and Ho Chi Minh cities, along with other enterprise and on-premises investments.

Key Highlights:

- In Vietnam, the cloud computing market is led by both local and global companies such as FPT Corporation, Viettel-CHT, CMC Corporation, IBM Vietnam, Microsoft Vietnam, AWS Vietnam, Mat Bao Corporation, NTC Cloud Computing, SAP Asia (Vietnam), HPT Vietnam, and Google.
- In Vietnam, the banking industry is moving towards the adoption of Big Data and cloud computing solutions to provide a wider range of customized services more efficiently and cost-effectively to clients.
- In Vietnam, most facilities are built according to Tier III standards, with a minimum redundancy of N+1 for generators.
- 5G networks will boost the adoption of digital platforms in the country and heighten the demand for high bandwidth networking infrastructure.
- Vietnam is aiming to generate around 30% of its electricity via renewable sources and reduce its Greenhouse Gas (GHG) emissions by 8% by 2030. By 2045, renewable energy is expected to contribute to over 50% of the overall capacity of data centers in Vietnam.

3. Indonesia Data Center Market - Investment Analysis and Growth Opportunities 2021-2026

[Indonesia data center market](#) size will witness investments of USD 2275 million by 2026, growing at a CAGR of 6% during 2021-2026. Arizton has identified about 40 unique data center and 5 upcoming facilities in Indonesia.

Indonesia attracted most of the investment from colocation service providers such as Keppel Data Centres and Salim Group, NTT, Space DC, DTP, Biznet Data Center, and DCI Indonesia. In Indonesia, wholesale colocation contributes around 8% of the market share and retail colocation was 92%.

Key Highlights:

- The IoT market in Indonesia is estimated to reach around USD 110 billion by 2025. Per the Indonesian IoT Association, the country has installed over 450 million sensor devices.

- DCI Indonesia and Space DC are major investors involved in the construction of Tier IV facilities.
 - Indonesian data centers are a major adopter of DRUS systems, with generators mostly used in N+1 redundant configuration.
 - The Indonesian government program 'Making Indonesia 4.0' is applicable to all industry verticals and will enable IoT as a link for all equipment to be connected to the internet.
 - Microsoft announced its first data center in Indonesia, while Alibaba planned to launch its third cloud data center in Indonesia, which is expected to be operational in 2021.
 - Batam Sarawak Internet Cable System (BaSICS) would enhance the connectivity between Malaysia and Indonesia. The development of new data centers increases with the better submarine cable deployment YoY.
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