Data Center Services: Powering the next Decade of Growth in India

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1   Overview of Data Center Industry in India

Digital transformation has already become imperative for enterprises to gain a competitive edge. Enterprises, ahead in the digital transformation curve, are driving business transformation and innovation through the adoption of digital technologies such as cloud computing, Internet of Things, Mobility, Analytics etc. In the quest to become a digital enterprise, Cloud has become a major pillar of digital transformation for enterprises. Enterprises, irrespective of their size, are moving their workloads onto the cloud for flexibility and economies of scale. They are adopting dynamic hybrid cloud/multi-cloud environments to boost their business growth and operational efficiency.
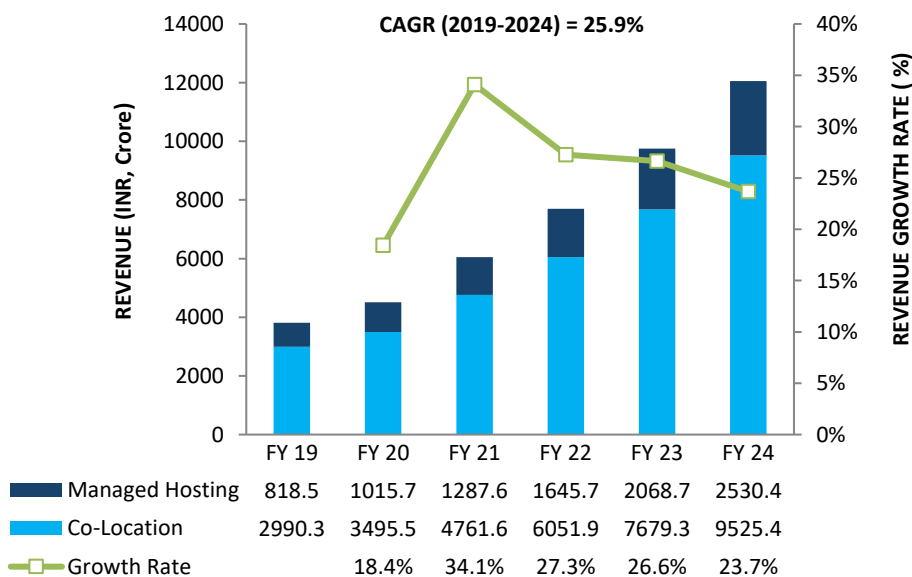
The Data Center market in India is one of the fastest-growing markets in the world. With the dawn of digital transformation, organizations ranging from large to small

and medium enterprises are adopting digital technologies and cloud computing.

The key theme driving growth in India is the explosive digital needs of Indian emerging economy with huge populations, the growing presence of hyperscalers, high penetration of Internet connectivity and a keen focus on data privacy. Furthermore, rising complexities within the IT infrastructure brought about by virtualization and consolidation, coupled with various cost constraints, are encouraging enterprises to look into adopting third-party Data Center services. The market is also expected to see many growth-related projects across verticals viz., banking, insurance, telecom, IT and ITeS. This is spurring the healthy growth of DC market.

Market size and forecast

Exhibit 1: Data Center (DC) Services Market: Market Revenue Forecast in India, 2019 – 2024

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Managed Hosting	818.5	1015.7	1287.6	1645.7	2068.7	2530.4
Co-Location	2990.3	3495.5	4761.6	6051.9	7679.3	9525.4
Growth Rate		18.4%	34.1%	27.3%	26.6%	23.7%

CAGR (2019-2024) = 25.9%

Frost & Sullivan estimates the India Data Center services market to be worth INR4511.2 Cr. in revenue in FY20, representing a growth of 18.4% over FY19. The market will grow at a compound annual growth rate (CAGR) of 25.9% from 2019-2024 to reach INR12055.8 Cr. by the end of FY24.

Source: Frost & Sullivan analysis

*Forecasted using the base year FY-19

2 Key trends shaping the DC industry in India

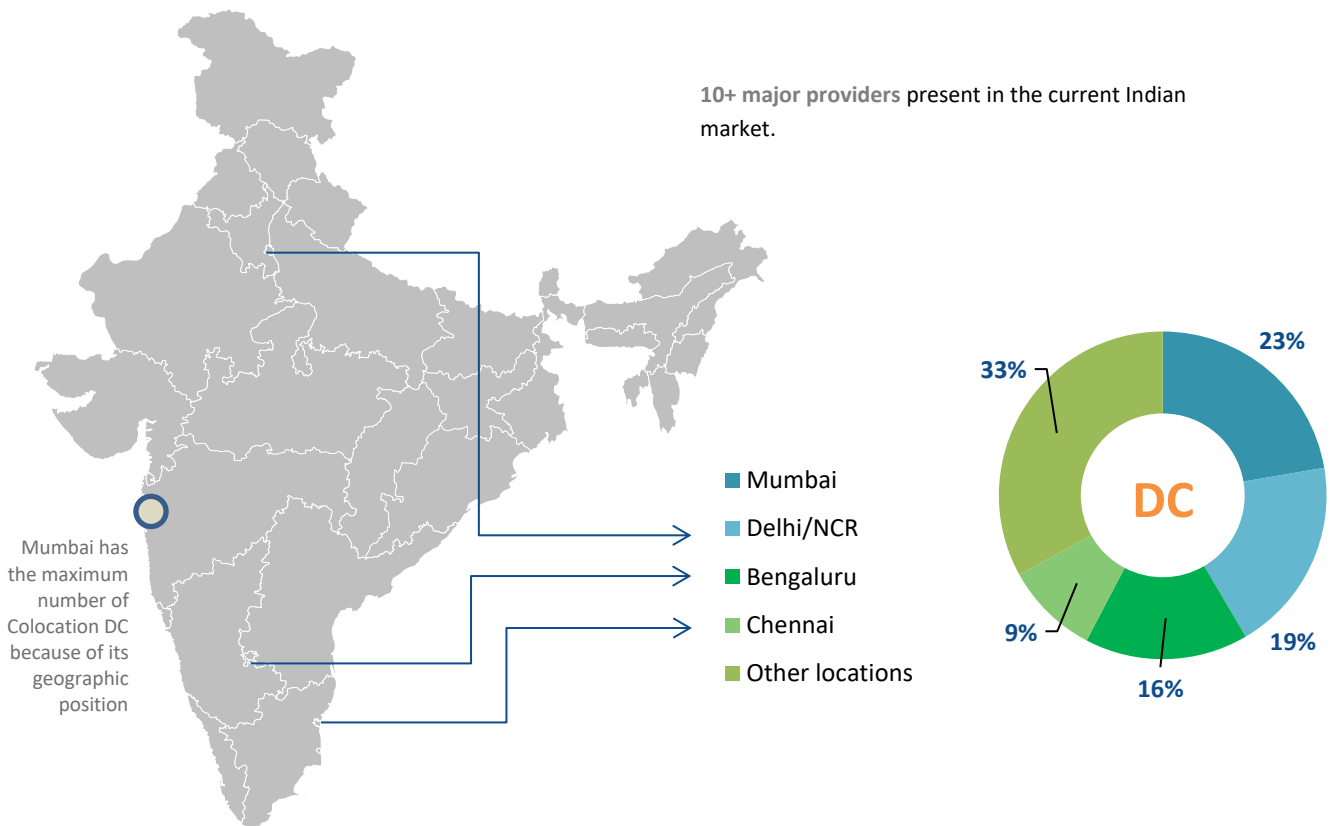## Indian Colocation Market – an opportunity for all Colocation players

> "The Indian Colocation market has an immense potential to grow and is growing with a CAGR of 26.1 %. India is one of the major markets for colocation providers. The growth opportunities are attracting the global players towards this market."

The Indian Colocation market has tremendous potential to grow leveraging key levers like multi-tenancy, scalability and reduce CapEx amongst other things. Colocation services accounted for the bulk of market revenue at 78.5% in 2019. This will continue to be driven by large enterprises and verticals such as Banking, Financial Services, and Insurance (BFSI), IT/ITES, OTT, Media which require strict data confidentiality and complete management control of their operations. In addition, cloud service providers are also generating new demand for colocation as they opt for third-party facilities to host their infrastructure for providing services to customers.

Exhibit 2: Colocation Data Centers in India - City Wise Colocation DC Numbers Share

10+ major providers present in the current Indian market.

Mumbai has the maximum number of Colocation DC because of its geographic position

- Mumbai
- Delhi/NCR
- Bengaluru
- Chennai
- Other locations

33% | 23% | 19% | 16% | 9%

Source: Frost & Sullivan analysis

Driver of growth for India Data Center market

India is recognized as one of the leaders in the ICT sector, globally. The growth of digital business in India is expected to rise substantially in the coming years, thus fuelling the demand for data processing and colocation services.

Digital Data Flow: The Unprecedented Growth Story

Increasing mobile penetrations and usage of internet

With the falling data cost and affordability such as EMI, more people are gaining access to the internet and smartphones, have enlarged the prominence in recent years. India had more than 570 million smartphone users in 2019. In every three seconds, a new user connects to the internet, deciphering into 30,000 new users per day. This has led to an ever-growing amount of digitized data, which drives the adoption of data center services in India.

Social media, Gaming, and OTT driving capacity growth

India is the largest market for social media platforms like WhatsApp, with 400 million users. Social media companies have to quickly adapt in order to store and manage all of the data produced from the billions of people on social media. As existing applications grow and new social media apps are created, their need for Data Center capacity will continue. Millions data users are consuming large volumes of data in the form of entertainment (movies and music), gaming and sports content. There are more than 40 providers of over-the-top (OTT) media services in India. This space is dominated by a regional language user base, which is progressively growing. Most of OTT users face the issue of latency. To offer better user experience with less buffering in the semi-urban and rural regions, India will need more Data Center to be set up in the tier-II and III cities and towns. This will translate into edge data centres in the populated rural areas of the states such as UP, Bihar and MP, to name a few for the faster data processing and lower latency. Edge Data Centers will complement existing Data Centers by acting as an additional processing layer located close to the source.

High growth in e-commerce

The Data Center segment is expected to get the oil from the eCommerce in India as consumers are shifting to online spending to keep social distancing. The increasing internet penetration across, urban semi-urban and rural segments would help boost the online sales. Data centres form the backbone of this vast and ever-expanding e-commerce to store data with enhanced data security & privacy.

IT, BFSI, Fintech and Payment Space – widespread demand base

Technology and banking & financial services are the two important industry sectors that have accounted for the majority of investments over the past few years. The demand for IT and IT-enabled services is creating the need for third-party Data Center services. This is because services can be provided in a cost-efficient and convenient manner, in comparison to establishing captive Data Centers, indicating that the demand for colocation will rise exponentially in the coming years. The amount of data that is being stored and processed by this segment is huge. Banks are encouraging their users to use internet-based channels or mobile apps. The number of transaction payments, whether online or offline, is growing at an unprecedented rate. The number of transactions will also act as a booster shot for India's Data Center growth.

Rise of App eco-system

The mobile app market is booming. The app industry has seen immense growth in the past couple of years and even has no end in sight. The rise in technology-driven start-ups is boosting this market. Such an unprecedented evolution of the app world has been a catalyst for the DC market growth.

Emerging Technologies – Cloud Services, IoT, 5G, AI and Big Data

The growth is being fuelled by the global hyperscalers requiring evermore space/capacity to support the Indian market demand. 5G will also result in a steep rise in the amount of data on the wireless eco-system due to wide bandwidth and speed. This will spur the uptake of third-party Data Center leasing capacities. IoT, AR, VR, AI, and big data are likely to provide investment justification in the Data Centers.

Exhibit 4: Increasing data usage – DC Industry Enabler

1.1 billion
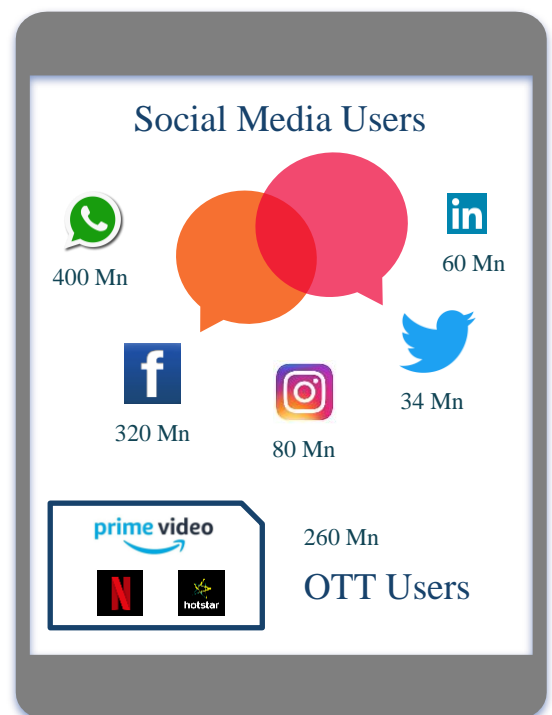That's a lot of Mobile subscribers

570 million
And a lot of Smartphone users

10.8 GB per month
India has highest average monthly data usage per smartphone

Social Media Users

400 Mn

60 Mn

320 Mn

80 Mn

34 Mn

prime video
260 Mn
OTT Users

Government effort on digital economy

The Personal Data Protection Bill, 2019 and Data localization

Indian government policies are conducive for the ICT market's growth. It has set up objectives in the National Digital Communications Policy in 2018 (NDCP-2018) to boost the Digital India initiative, which needs to be achieved by 2022. The government has also introduced personal data protection bill that seeks to create a framework for the processing and storage of the sensitive personal data, and lists out individual's rights in reference to their personal information. As per the legislation, an original copy of personal data is to be stored within the country. However, the sensitive personal data can also be transferred abroad for the purpose of processing in line to the legislation. The data processing can be processed without person's consent in certain situations such as legal cases, national security and medical emergencies.

The key legislation that is having the direct impact is the Reserve Bank of India's (RBI's) notification on 'payments'. This notification states that payment system players (service providers/intermediaries/third-party vendors and other entities) to store entire data with full end-to-end transaction details related to payment transactions only in India. Exception: Data relating to the foreign piece of the transaction is permitted to be stored outside India, if required.

States also recognize the potential of the DC industry. State government aren't behind in attracting DC players as Maharashtra, Gujarat and Telangana are offering special incentives and other benefits for industry players.

Right to privacy and protection of personal will become important aspects of the data storage. The data localization and other incentives by the states are expected to drive the growth of domestic data centres. It brings up a massive opportunity for colocation data centre players.

E-commerce Penetration

0.4%	3.0%
2017	2020

Card Transactions Growth Volume

7.2 Bn	15.9 Bn
2015	2019

Cloud Computing Growth in INR

39,159 Cr.	110,104 Cr.
2020	2025

Enterprise IoT Growth in INR

5,627 Cr.	7,585 Cr.
2019	2023

Source: Frost & Sullivan analysis

3 Attributes of a DC partner

Selecting a Data Center or colocation provider is a critical decision for any establishment. The below criteria can be used as a basis for DC partner selection:

Attributes	Key components
Location of facility	Travelling distance from the main office to the Data Center Safe from natural and man-made disasters
Scalability	Ability to support future computing and network requirements Future investment by the provider in the latest facility design and operational elements
Reliability and resiliency	Commitment and adherence to 99.999%SLAs High deployment efficiency
Experience and financial stability	Track record and reference customers DC partner should be able to support for a longer-term. Therefore, enterprises must focus on financial health and stability of the DC provider.
Cost	Transparent pricing model Flexibility and pricing guidelines for the contract period
Global vs Local footprint	Multinational DC partner offer better expansion strategy with strong financial backing
Security	State of physical security (e.g. Biometric authentication, security guards, surveillance cameras, and soon) Industry-related certification such as PCI/SOX and ISO27001 to name a few
Network Eco-system	Carrier Neutral Data Centers Quality of bandwidth
Energy Efficiency	Green efficiency practices: Usage of renewable energy sources On-site power generation
Value-added services	Monitoring – pro-active availability monitoring, real-time dashboards Beyond Colocation – Hybrid Cloud Solutions

ST Telemedia Global Data Centres India (STT GDC India)

ST Telemedia Global Data Centres (STT GDC) is a fast-growing data centre service provider headquartered in Singapore. With a global platform of data centres in the world's major business markets of over 100 facilities across Singapore, China, India, Thailand and the UK, STT GDC offers a full suite of best-in-class, highly scalable and flexible data centre solutions, connectivity and support services that best meet customers' current and future colocation needs.

ST Telemedia Global Data Centres (India) (STT GDC India), a majority-owned subsidiary of ST Telemedia Global Data Centres is a market-leading data centre service provider with the largest data centre footprint in the country. Since 2004, STT GDC India has been managing the country's largest raised floor area and critical IT load with now 16 facilities across 8 major cities serving over 1,000 customers, including many Fortune 500 companies. Its mission-critical solutions comprise of best-in-class offerings delivering industry-leading uptime to its customers. STT GDC India now operates three of the country's largest data centre facilities in Pune, Chennai and Bengaluru.

STT GDC India is considered as a trusted DC partner by the enterprises including hyperscalers, BFSI organizations, and IT companies, to name a few. The company manages the largest pan-India DC floor area, and IT load delivering 105-plus MW of IT load via 16 carrier-neutral facilities. With its DCs spread over 2.5 million sq. ft. in 8 cities; the company offers the enterprises an option of selecting sites as per their strategic locations while lowering total cost of ownership. STT GDC India has expansion plans in all major cities such as Chennai, Mumbai, Pune, Hyderabad, Delhi-NCR and Bengaluru.

STT GDC India has consistently focused on the customer-centric innovation, which has led to a significant market share emerging as a market leader in the segment. Company is focused on innovation in new territories such as Green Data centres and Edge Computing as STT GDC India is committed to offering edge DCs across tier 2 and tier 3 cities.

16 Carrier Neutral Facilities
105-plus MW of IT load via
2.5 **Mn sq. ft.** in **8 cities**

INDIA

10 DCs in UK
United Kingdom

71 DCs in China
China

16 DCs in India
India

1 DC in Thailand
Thailand

Singapore

7 DCs in Singapore

100+ facilities
GLOBAL FOOTPRINT
World's major business markets

An ideal DC partner for Enterprises

FINANCIAL STABILITY

With a strong balance sheet with revenues pecking at around $ 4.1 Billion in 2019, ST Telemedia (STT) - the parent company of STT GDC, has consistently exhibited the ability to scale, build a strong brand reputation since its inception dating back to 1994.

STT GDC India continues to be financially stable during adverse situations, indicating fiscal forethought.

SCALABILITY

The company offers scalability over time as per the demands of new emerging business models. To support organizations, the company also provides flexible commercial models to its customers. In India, 16 DC across 8 cities offers a wide variety of choice to customers.

The company's global footprint supports customers' current and future needs by becoming their single DC partner to shorten enterprises' global growth strategies and offer a consistent experience across regional markets.

RELIABILITY

STT GDC India has implemented cutting edge AI-enabled automation in power management, cooling and maintenance, ensuring no downtime and uninterrupted operations for the customer. The company exceeded 99.999% availability.

CUSTOMER EXPERIENCE

Enduring customer relationships are shaped through quality engagements.

STT GDC India offers superior customer experience throughout the customer lifecycle, right from on-boarding to post-sales support. Proven delivery track record of the company demonstrates its commitment towards the customer-centricity.

EMPLOYEE CENTRIC APPROACH

STT GDC India has been recognized with the "Great Place to Work" Certification in 2020. The company fosters continuous training of its workforce; a testament of employee-centricity to ensure that the manpower is aligned with the business objectives of offering exceptional service delivery.

NO TENANCY RISK

STT GDC India provides long term contracts along with ensuring zero tenancy risks. Large parcels readily available with all requisite approvals. The company offers large capacities on short notice.

NEW STATE OF THE ART DC IN BENGALURU

SPECIAL FEATURE

STT Bengaluru DC3

The 18MW, purpose-built facility is spread over 400,000 sq. ft. The entire data centre is designed to meet the highest benchmark in green practices and is built from ground up, drawing on STT GDC India's combined design, construction, engineering, and operations expertise. It is designed to meet the modern day high-density computing needs of its customers for Mobility, e-Commerce, IoT, Cloud and Big Data.

Bengaluru is a sweet spot of India's high-tech industry having more than 67000 IT companies. Whitefield is a major hub for the growing technology industry. There are several tech parks having offices of IT and ITES establishments such as Oracle, GE and SAP etc. With the ascent of the metro connectivity, Whitefield is on its way to become the leading hub of Bengaluru. Therefore, Bengaluru DC 3 is positioned at the strategic location that provides a competitive advantage to cater the needs of the enterprises.

A sneak peak into its key features

Superior Design

Tier III & IGBC Gold Certified building, built for seismic zone 3. Column-free space, enabling full utilization of rack space. Rampless design ensures equipment can be transferred without tilting, thus mitigating risks of sensors getting damaged during movement. Multi-level car parking allowing for optimum utlilization and availability of space

Reliability

Data centre technical setup includes 66 KV Gas Inuslated Ssubstation (GIS) with dual feeders from different substations. UPS infrastructure with distributed redundancy & Dual coil CRAC with Dual headers ensures with concur ably maintainable setup

Sustainability

High-efficiency chillers, reduced water consumption through intelligent design, and energy-efficient uninterruptible power supply

Building Management System

State of the art BMS comprises of CuMS (Critical Utility Management System), CMS (Chiller Management System), EMS (Energy Management System) and PMS (Power Management System) thus optimizing facility operations and boostingefficiency

Balance with business

No tenancy risk offers long term business commitment. Land, building and equipment owned by STT GDC India

Carrier-neutral and carrier dense

Large MMR rooms offering a wide array of connectivity choices from three diversified paths

Security

A perimeter of multi-level security zones, including 24/7 manned security, CCTV video surveillance, identification with biometric access control, and security breach alarms

STTelemedia
Global Data Centres

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Is your organization prepared for the next profound wave of industry convergence, disruptive technologies, increasing competitive intensity, Mega Trends, breakthrough best practices, changing customer dynamics, and emerging economies? Leverage visionary innovation that addresses the global challenges and related growth opportunities that will make or break today's market participants.

Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, works in collaboration with clients to leverage visionary innovation that addresses the global challenges and related growth opportunities that will make or break today's market participants. For more than 50 years, we have been developing growth strategies for the Global 1000, emerging businesses, the public sector and the investment community. Is your organization prepared for the next profound wave of industry convergence, disruptive technologies, increasing competitive intensity, Mega Trends, breakthrough best practices, changing customer dynamics and emerging economies?

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