

sify'

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Sify to invest
in over 200 MW of green power



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AGENDA

1

GLOBAL DATA CENTER INDUSTRY

2

INDIA - GLOBAL EPICENTER, TRENDS & DRIVERS

3

DATA CENTER POWER - CHANGE IN PROFILE

4

OUR DATA CENTER JOURNEY & ROADMAP

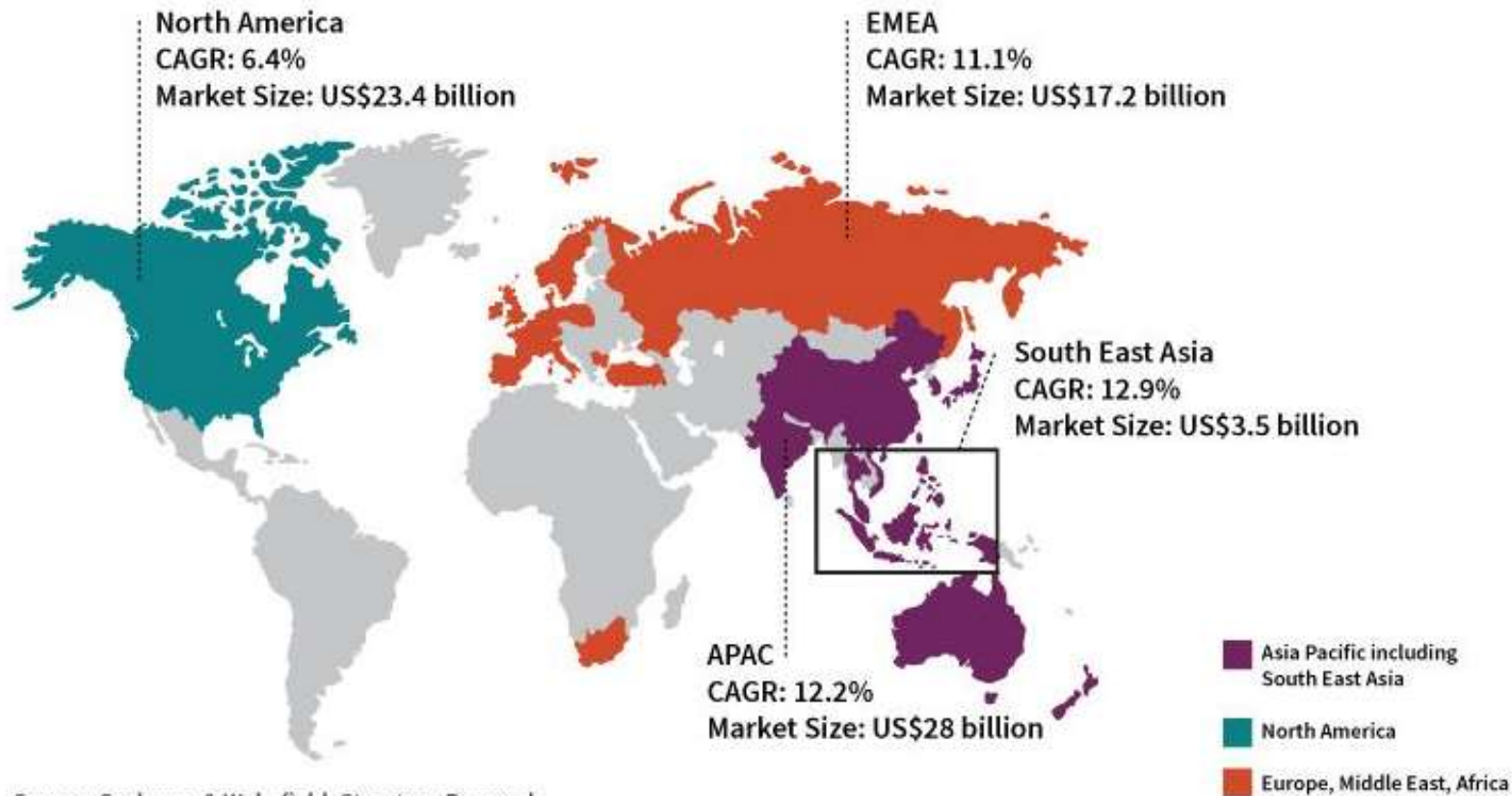
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 A VIBRANT PARTNERSHIP



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GROWTH/COLOCATION MARKET SIZE BY REGION: 2024

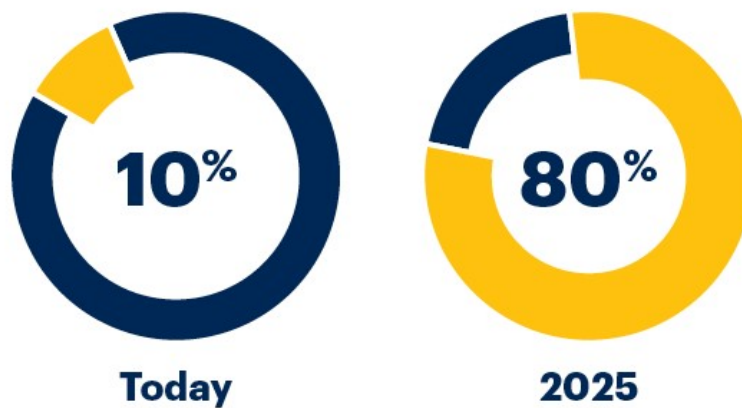


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BIG MARKET SHIFT DRIVING IT

Enterprises That Will Close Their Traditional Data Centers

Percentages of Respondents



Source: Gartner (February 2019)
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Gartner

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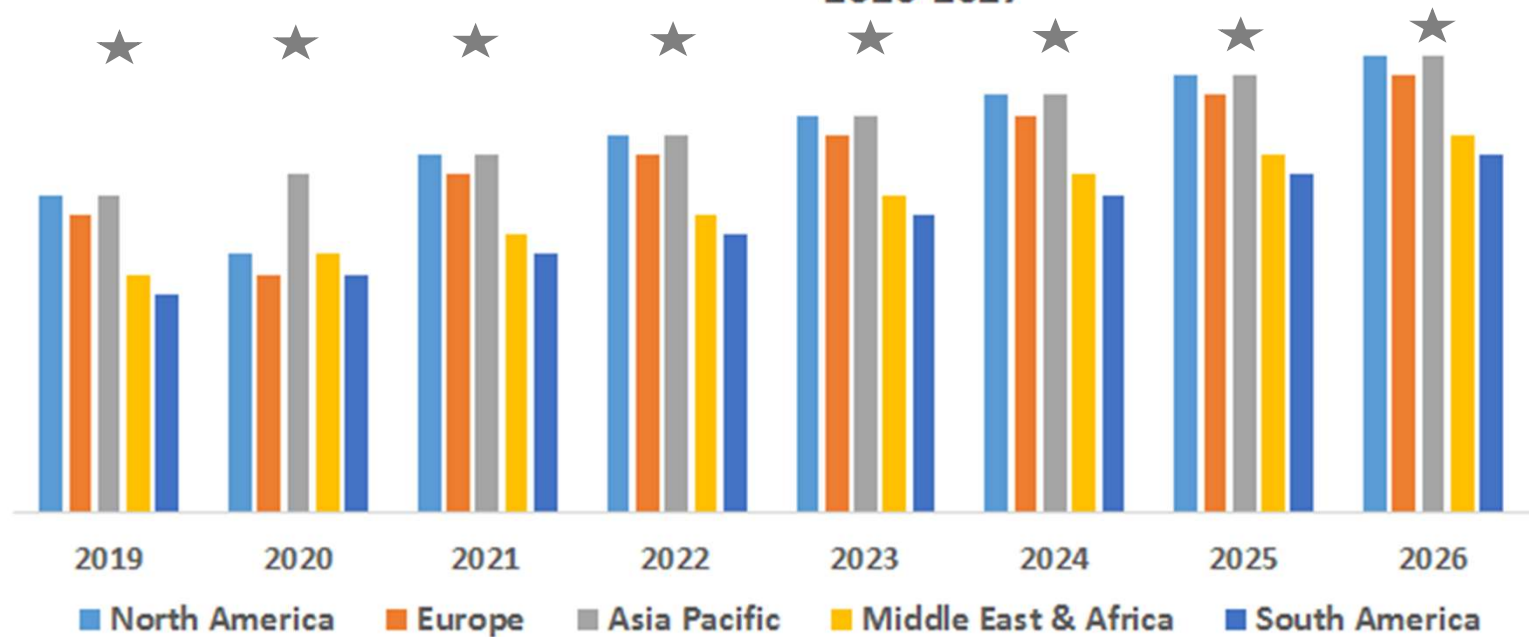
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GEOGRAPHIC TRENDS

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Global Hyperscale Data Center Market, By Region:
2020-2027



★ One of the fastest growing DC market



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CENTRAL TO A DIGITAL MARKET

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Data Centers to Power —Up Indian Economy—

- Data Centers would be classified as infrastructure assets from April 2022.
- India's data center market is anticipated to reach USD4.6 billion by 2025, according to a report by NASSCOM. ◀
- The Indian data center market currently houses an estimated 445 MW of critical IT capacity.
- In 2021, government introduced 'Hyperscale data center scheme' worth INR12000 crore (USD160.3 million) to facilitate the installation of data centers in the country. ◀
- The Data Center Policy 2020 will drive ease-of-doing business and facilitate capacity building.

TECHSCI RESEARCH
from NOW to NEXT



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PROVING ITS SPURS



Data center provides boost to digital economy during lockdown

Increased data growth

14% rise in daily data consumption-average 270 Petabytes (PB) during pre-lockdown to average 308 PB post-lockdown (during March 22nd-28th)

12% rise in data usage in Andhra Pradesh and Bihar*

7% increase in data consumption in Maharashtra, highest data consumer*

16% more time spent by smartphone users over pre-COVID-19 period⁴

80% rise in subscriber base of a leading OTT player, during first month of lockdown⁵

24% recovery in digital payments in June over April as online spend picks up⁶

1.5 mn schools and **~40,000** colleges across the country depend on online education during lockdown⁷

Impact of COVID-19 on digital economy

Work from office disrupted

Captive servers became inaccessible

Homes became work, education and recreation centers

Data centers recognised as essential services

India's **375 MW** data center industry kept digital economy working

Data security became priority; Concerns around data

Growing trend of on-premises data centers migrating to colocation/cloud/hybrid solution

*Department of Telecommunications, Ministry of Communications, Government of India
⁴Broadcast Audience Research Council & Nielsen Media

⁵Forbes.com
⁶Reserve Bank of India

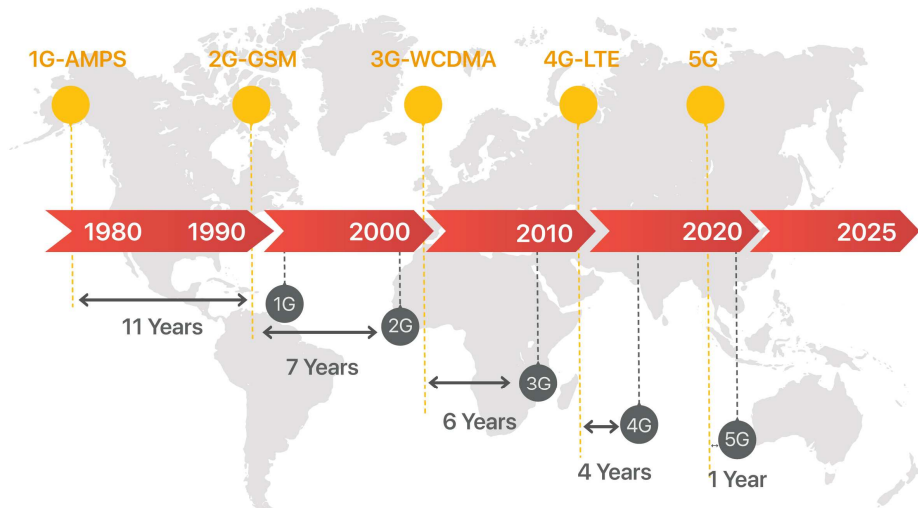
⁷Ministry of Human Resource Development, Government of India



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THE CATALYSTS OF CHANGE

India will be an early adopter of 5G



zinnov

● Global Launch
● India Launch

A HOTBED OF TECHNOLOGY ADOPTION
DRIVEN BY LOWEST ENTRY COST

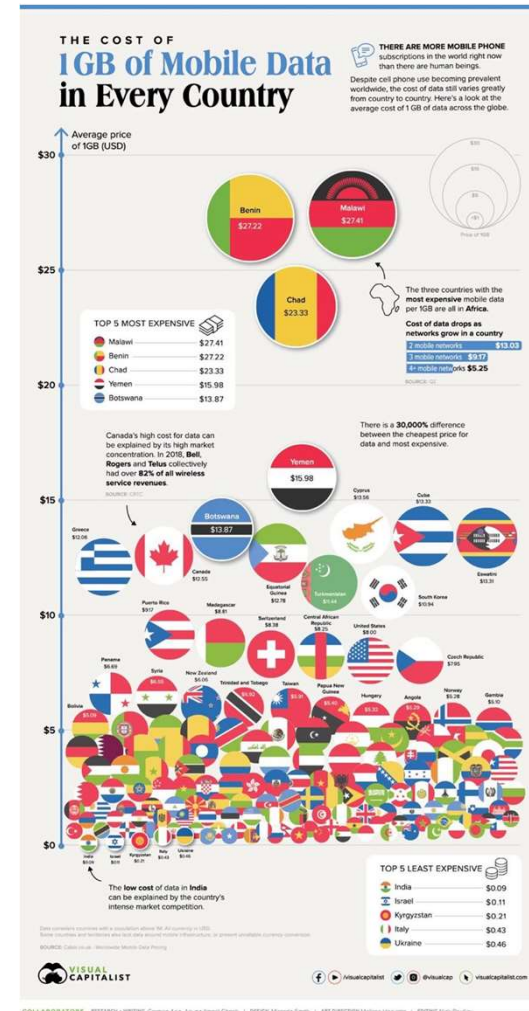
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ENERGY

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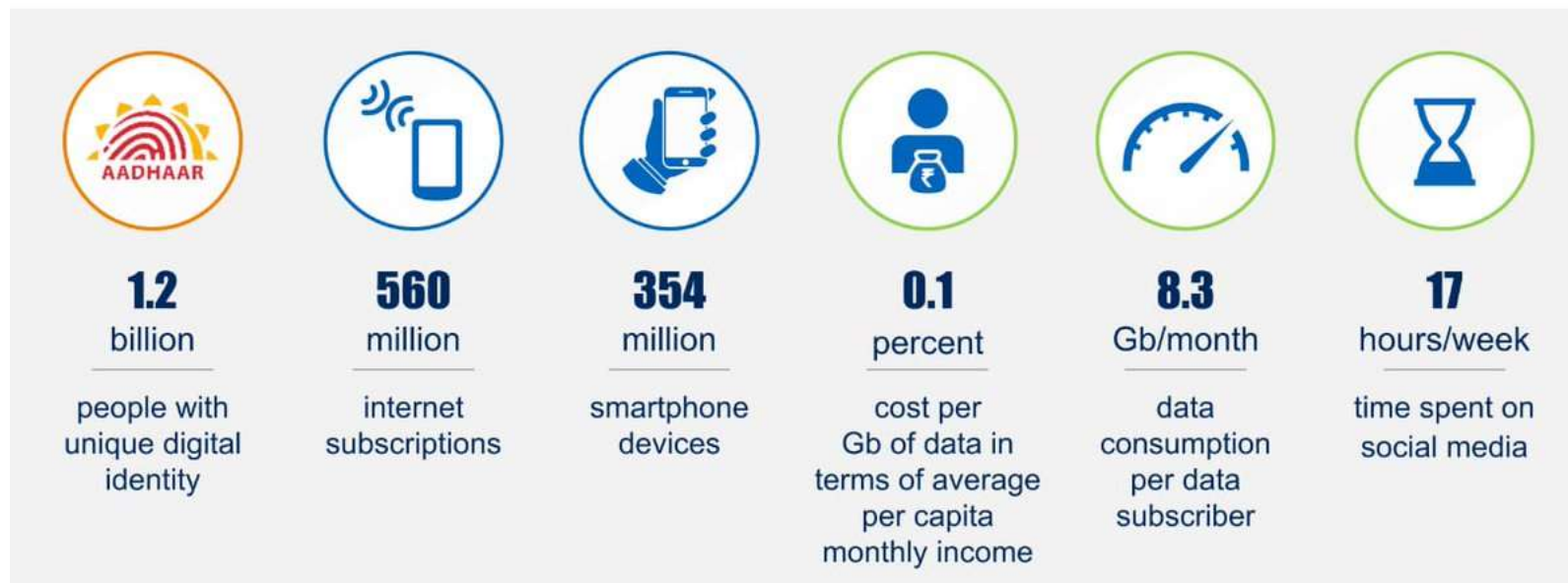
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THE DIGITAL MARKET OPPORTUNITY

India is among the top countries globally on key aspects of digital adoption

India ahead of all countries India **second** in the world India one of the leading countries



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Source: Gol and MeitY 2020

THE FEATURE-RICH FUTURE



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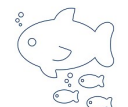
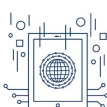



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PROFILE SHIFT

How will we build and operate data centers in the future?

A LOOK AT DATA CENTER TRENDS – AND WHERE WE'RE HEADED NEXT

	Location	Structures	Energy efficiency	Renewables	Storage
TODAY	Near fiber networks Data centers are constructed in areas with dense fiber networks 	Cloud and on-premise Hybrid-cloud, the mix of cloud and on-premise solutions, witnesses widespread adoption 	Air-based cooling Cold and hot air are redirected to keep equipment at the right temperature 	Plugged in and RECs Many data centers are plugged into the grid, balancing dirty energy with RECs 	Hard disk drives Over 90% of storage device shipments to enterprises are HDDs 
TOMORROW	Cool, Stable Climates Climates, like the Nordic region, allow data centers to cool efficiently and save energy 	Smaller and larger Mega data centers benefit from economies of scale, micro data centers benefit latency and portability 	Liquid and AI-assisted cooling New cooling materials and AI-assistance emerges 	Big tech buys renewables FAMGA can afford to buy large amounts of RE for its centers 	Solid state drives SSDs become more prevalent in data centers as prices per unit fall 
FUTURE	Small and off-shore Small, off-shore data centers add new capacity quickly 	No data centers at all Data storage and computational resources are crowd sourced through P2P device networks 	Reusing excess heat Residual heat is recycled and redirected to communities 	RE farms and data centers work together Tech helps smaller buyers and producers connect 	More with less Innovations such as HAMR and liquid-state storage provide greater capacity at lower cost 

A growing trend across geographies

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CBINSIGHTS



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EARLY SIGNS

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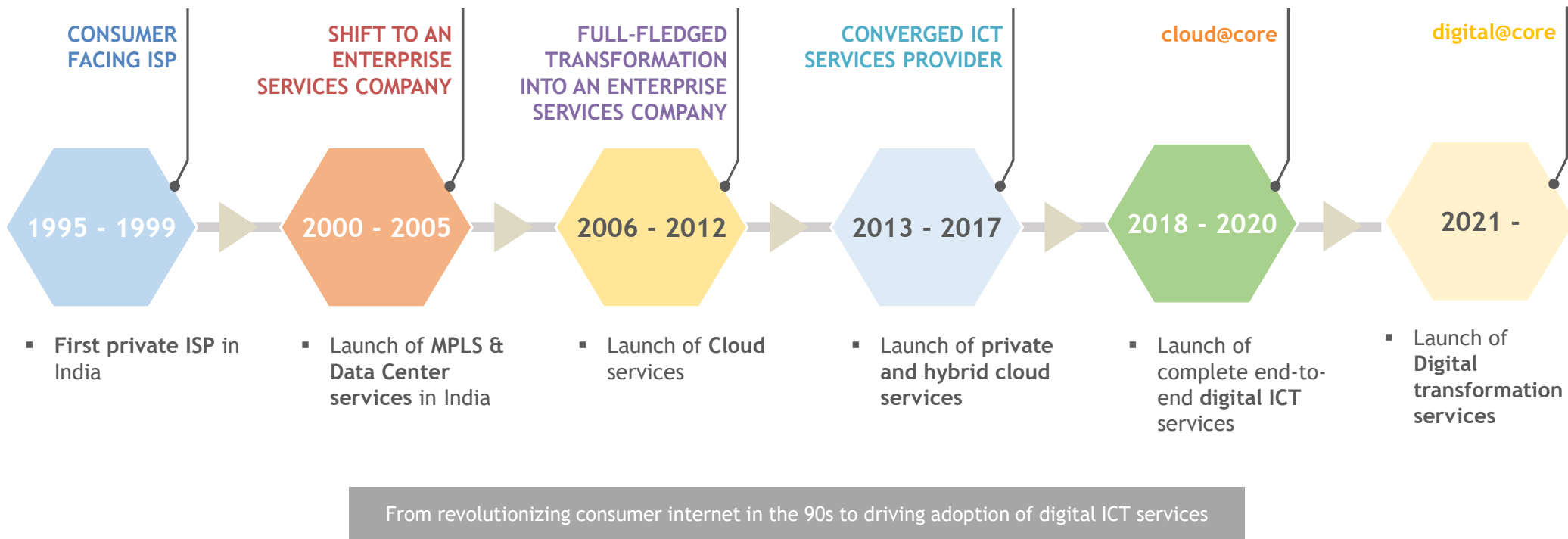
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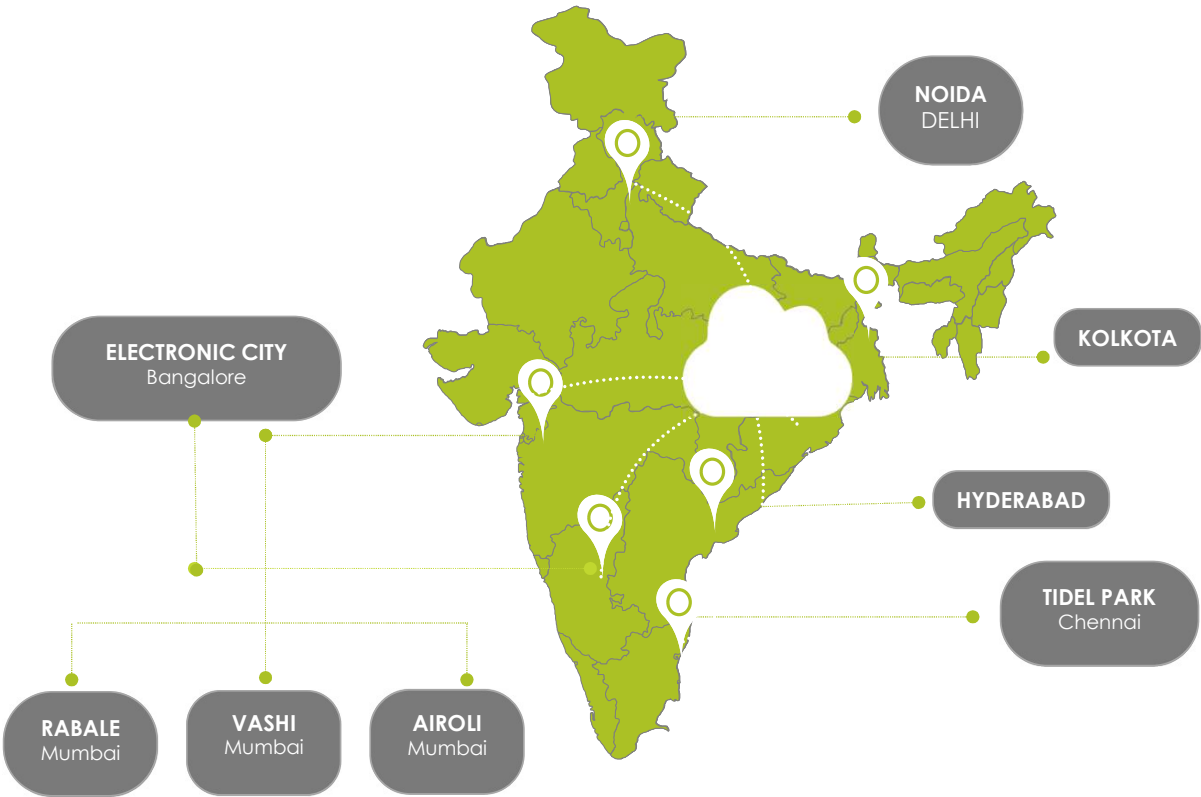
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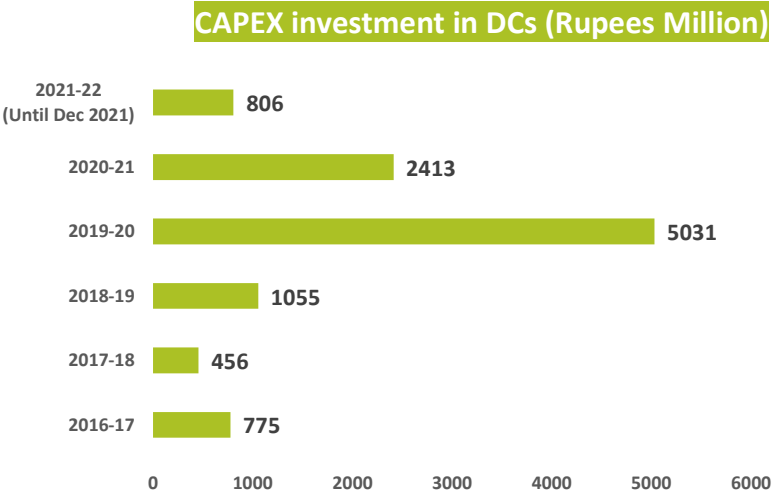
SIFY'S JOURNEY: 25 YEARS OF TRANSFORMATION



Data center presence



Data Center Investments



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SYNERGIES IN THE PARTNERSHIP



ASSETS



- 11 Pan-India DCs with >80 MW capacity



- On track to add 200 MW in next 4 years



- “Cloud Connect” data superhighway
- 49 on-net data centers



- Enterprise and Hybrid Multi Cloud
- Enterprise Cloud grid fabric



VIBRANT
ENERGY

STRENGTHS

- 60+ renewable energy development specialists

- 1GW+ in delivery. 2 GW+ in pipeline

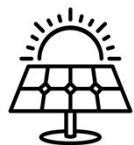
- Strong track record of renewable energy delivery

- Global network of GIG & Blueleaf Energy supporting Vibrant Energy

RENEWABLE ENERGY ROADMAP

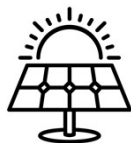


Roadmap to **231MW** renewable energy for Sify



67MWp /
45MWac solar

Maharashtra
COD in 1Q 2022



60MWp /
40MWac solar

Maharashtra
COD in 2023-2024



42MWac wind

Maharashtra
COD in 2023-2024



51MWp /
35MWac solar

Maharashtra
COD in 2023-2024



11MWac wind

Maharashtra
COD in 2023-2024



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VIBRANT, GIG's India Renewable Investment Platform



GIG is a part of Macquarie Group which focuses on renewable energy investment



Blueleaf Energy is GIG's APAC onshore renewable energy investment platform, operating on a standalone basis



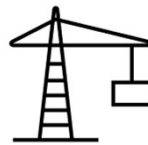
Vibrant Energy is Blueleaf Energy's India renewable energy investment platform, operating on a standalone basis



MACQUARIE GIG AT A GLANCE



US\$28+ billion of capital
committed or arranged



35+ GW in development



Supported 3.9 GW of
renewable energy projects
with PPAs



11+ GW of operational
projects



450 renewable energy
experts



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Thank you



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