

IDC MarketScape: India Datacenter Services 2024 Vendor Assessment

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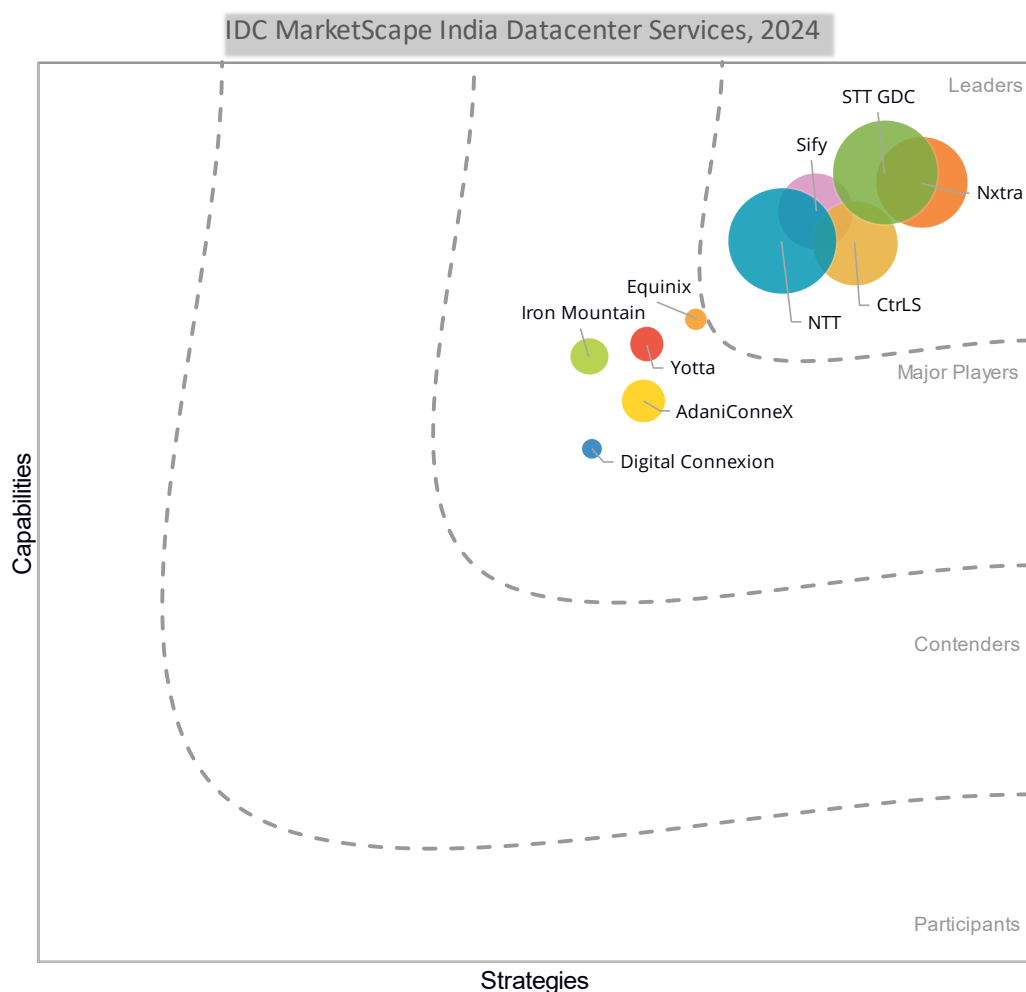
Shouvik Nag

THIS IDC MARKETSCAPE EXCERPT FEATURES NXTRA AS A LEADER

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape India Datacenter Services, 2024



Source: IDC, 2024

Please see the Appendix for detailed methodology, market definition and scoring criteria.

IDC OPINION

Datacenters (DCs) are vital components of the infrastructure backbone of the digital economy, serving as central hubs for cloud computing, connectivity, and application deployment. DCs provide strong connectivity to captive, hosted, and cloud environments. Datacenter SPs have gone beyond colocation services to offer cloud infrastructure, data backup and disaster recovery, along with diverse network connectivity services to enterprises. Hyperscale datacenters are becoming increasingly important in the hybrid multicloud ecosystem as global cloud SPs are increasing their commitment to building customized datacenters. Both enterprises and hyperscale organizations recognize the significance of having continuously available and compliant infrastructure. Besides, sustainability practices are of higher importance for enterprises to meet their environmental, social, and governance (ESG) goals. Enterprises would find it increasingly difficult to build and maintain datacenters that meet their sustainability goals. Hence, there will be growing demand for outsourcing datacenter operations to expert service providers. Additionally, business leaders of enterprises prioritize business resilience, and business continuity and disaster recovery (BCDR) as essential aspects of their IT strategy that will further drive datacenter demand.

As more people in India are consuming different digital services starting from basic services such as ordering food online and video streaming, to sophisticated services such as digital banking, enterprises need to drive their digital transformation (DX) projects faster. India saw a huge uptake of digital services during the COVID-19 pandemic, supported by a rapid growth of public cloud services in the country. Hybrid multicloud will become the cornerstone of a modern digital infrastructure that will support this digitalization growth. Data is expected to grow at an exponential rate while new modern applications will be deployed across core, edge, and public cloud deployments. This drives a growing demand of datacenters in India to support DX efforts. In addition, increasing popularity and adoption of AI and ML technologies will steer the need for compute intensive architecture for training and inferencing AI tools. Datacenter SPs are investing to build and offer AI-designed infrastructure to enterprises.

The India datacenter market has grown strongly in the last two years with some of the larger players having significant footprint in India. This is followed by other smaller vendors that have entered the India market either directly or through joint ventures (JVs). There is growing trend for built to suit datacenters in India as hyperscale cloud SPs are looking to expand their public cloud regions and availability zones footprint with a longer-term commitment. The growing demand for edge datacenters is clearly visible as content needs to be processed where it is produced

and customers need to be serviced faster. As a result, there has been a recent uptake in mega datacenter projects in India.

IDC MARKETSCOPE VENDOR INCLUSION CRITERIA

To gain insights into the competitive landscape of popular datacenter SPs in the India region, it was essential to assess their capabilities to cater to the organizations' requirements across various sizes and levels of prominence. To achieve this, a vendor inclusion criterion was established to define the parameters of the study. All vendors had to meet six specific criteria to be eligible for participation in the IDC MarketScape. They must:

- Offer a range of services to customers (e.g., network and interconnection, cloud infrastructure, colocation, remote management, security, BCDR, managed services [i.e., hosting, security network, applications]).
- Have generated over US\$5 million in datacenter revenue for FY23 from datacenter-related services (including colocation, bare-metal services, interconnection, and so forth).
- Operate a minimum IT load capacity of 25MW (existing and planned capacity) in India.
- Have at least one operational datacenter facility located anywhere in India.
- Implement ESG initiatives for their organization and their stakeholders.
- Focus on both end-user enterprises and wholesale services to technology providers and offer managed datacenter services.

ADVICE FOR TECHNOLOGY BUYERS

Datacenters play a pivotal role in enabling businesses to harness the full potential of DX and remain competitive in the ever-evolving technology landscape. Although wholesale datacenters attract large-scale clients with cost-effective solutions and tailored infrastructure, retail datacenters remain resilient because of their unique advantages and other value-added services. Retail datacenters cater to a diverse range of customers, including small and medium-sized businesses (SMBs), by offering flexible solutions that meet users' specific needs. These datacenters provide managed services, connectivity options, onsite support, backup and disaster recovery services as well as managed cloud services, allowing businesses to focus on their core competencies while leveraging the expertise of datacenter providers. Additionally, proximity to urban areas often found in retail datacenters enables low-latency connections and facilitates collaboration among businesses. Despite the rise of wholesale services, retail datacenters continue to thrive by delivering personalized solutions and maintaining a strong customer-centric approach in this ever-evolving industry.

When considering buying datacenter space or building hyperscale datacenters, enterprises and hyperscale cloud SPs have to consider a number of factors. Organizations have to clearly understand the local market conditions and regulatory environment. Each country in the region may have different requirements and regulations governing data security and privacy that must be adhered to. Evaluating the scalability and flexibility of datacenters is essential to accommodate evolving business needs in a rapidly changing digital landscape. Hyperscale cloud providers looking for built-to-suit services need to understand the data privacy and security regulations very well. They also need to prioritize which locations should be targeted for setting up cloud regions in the country depending on availability of datacenter facilities, where and in what ways they need to service their end customers, and availability of connectivity services. This is also governed by availability of internet exchanges, other major carriers, and cloud regions to which they need to connect. Hyperscalers must plan for long term, probably look at more than 10 years' timeframe, and assess what level of scalability, flexibility, modern datacenter technologies they need to adopt as new services evolve in the market

Retail datacenter customer needs are diverse and unique. Enterprises need to tie datacenter investments with their business objectives. A number of questions need to be answered by business leaders such as what is the objective of sourcing datacenter space? Is eliminating IT capital expenditures of in-house datacenters the main objective? Is your organization looking to implement a successful hybrid multicloud strategy? Do you see your datacenter provider as a mere colocation SP? What additional services would you need beyond colocation services? Organizations need to evaluate what use cases they need to operate at their core and edge business locations, at what locations do their customers need to be serviced? Enterprises need to evaluate their existing on-premises and public cloud deployments and determine where should their fresh datacenter investments be to achieve superior connectivity between all entities and deliver top performance. Datacenter demand can vary by industry use cases, and enterprises need to determine the best solution based on how IT needs to support their businesses, how best they can connect their digital infrastructure components, and service customers in the best possible way.

Based on these considerations, enterprises should determine what locations they need to collocate their workloads and what types of datacenter services they need to procure from their service provider. They need to consider the scalability and flexibility of a datacenter service provider — do the future expansion plans of the datacenter service provider fall in line with the business objectives of the enterprise? Another important factor is considering the "as a service" consumption models at datacenter colocation facilities. Cloud-based consumption models for different use cases enable the scalability and agility to deploy modern AI and ML technologies and support the growing digital services demand.

Lastly, enterprises need to consider cybersecurity features and frameworks as these are critical components of the entire IT estate. Safeguarding data and applications are of utmost importance and enterprises should consider security portfolio capabilities during their datacenter SP evaluation process.

FEATURED VENDOR PROFILE

This section briefly explains IDC's key observations resulting in Nxtra's position in the IDC MarketScape. The description here provides a summary of the vendor's strengths and opportunities.

Nxtra

Nxtra is positioned in the Leaders category in the 2024 IDC MarketScape for India datacenter operations and management.

Nxtra, headquartered in India and a subsidiary of Bharti Airtel Limited, has a wide spread of datacenter establishments across major tier 1 as well as tier 2 cities. Being part of Bharti Airtel, which is one of the largest telecom operators in India, Nxtra offers robust connectivity services across its datacenters and helps customers accelerate their digital journey and host their applications where they want.

Nxtra has a total of 4.1 million sq ft of datacenter space in India, with nearly 225MW of IT capacity. The company has the largest network of interconnected datacenters in India with 12 large datacenters across major cities such as Mumbai, Chennai, Pune, Bangalore, and Noida, and 120+ edge datacenters all over India. Nxtra is going to add six more hyperscale datacenters and new edge datacenters in key metro cities, increasing their capacity to more than 400MW in the next two years.

Nxtra offers the following services:

- **AI-ready colocation infrastructure.** Nxtra has designed its datacenters to support AI workloads with higher floor loading, scalable power infrastructure, and multitower campuses. The latest cooling technologies such as direct to chip liquid cooling and liquid immersion cooling can be readily deployed.
- **Colocation services** to hyperscaler, and large and small enterprises across all the seismic zones of India, offering flexible commercial models.
- **Datacenter connectivity.** Through its parent company, Bharti Airtel, Nxtra offers high-capacity IP transits, point-to-point connectivity and cross connect across its datacenters, and direct interconnects to major cloud providers. Nxtra datacenters are connected to the fast express route to Airtel's existing cable landing stations (CLSs) and new datacenters will have on-net CLS available. Nxtra also offers new-age connectivity solutions such as "bandwidth on demand" and a software defined network.

- **Cloud services.** These cover public cloud PaaS and IaaS (collaboration with popular hyperscalers), dedicated private cloud, and edge-based services such as CDN, compute, storage, and bare metal services.
- **Fully managed disaster recovery as a service** is offered on both private and public cloud models.
- **Managed services.** These include converged ICT and telecom infrastructure managed services at all stacks (OS, database, storage, network, security)
- **Sustainable operations.** Nxtra has invested in sustainability practices by increasing its renewable energy usage to more than 40% for its core DCs through investment in 14 green energy companies. The vendor targets to reach net zero emissions (Scope 1+2) by FY31. Nxtra has been contracted to enable the sourcing of over 427,859MWh renewable energy till date and saved substantial carbon emissions by sourcing renewable energy through open access medium and from the captive solar rooftop plants in FY24. Nxtra is the first datacenter company in India to join the RE100 initiative and has ISO 50001:2018 certification for all its core datacenters.
- **Datacenter security services.** These comprise multilayer physical and electronics security, and adhere to global standards and regulations. The services offer full stack of security services (SOC, managed security services [MSS], VAPT, DDoS, edge security, WAA, and so forth) across all their datacenters.

Strengths

Nxtra's strengths are:

- **Strategically located datacenters.** Nxtra has one of the widest geographic coverage of datacenters in India with hyperscale, core, and edge datacenters across 65+ cities.
- **Robust build and operations.** Nxtra has strong core capabilities around datacenter build and operations and a strong track record of executing large built-to-suit DCs with high uptime, enhanced operational efficiency, and predictive maintenance capabilities.
- **Strong network infrastructure.** Nxtra, through Bharti Airtel, offers robust network services, connecting to domestic and international internet exchanges. They boast of 400,000RKM+ of domestic fiber network and 400,000RKM of global submarine network, across 50 countries and 5 continents, thus offering a platform of hyperconnected digital ecosystem with low latency, carrier dense, and rich interconnect services. Also, all of the datacenters are carrier-neutral and can offer bespoke connectivity options to customers based on their needs.
- **Future-ready infrastructure:** To keep up with the demands of AI applications, Nxtra's new hyperscale datacenters are designed to handle high density AI workloads with higher floor loading, scalable power infrastructure,

multiple tower campuses to accommodate long-term AI needs. Additionally, advanced cooling techniques such as direct liquid cooling and liquid immersion cooling can also be deployed readily.

- **Strong sustainability practices.** The company targets to become net zero by 2031. Nxtra has implemented energy efficient cooling technologies, sourced over 427,859MWh of green energy for datacenters, installed rooftop solar panels at both core and edge datacenters across multiple locations, installed a solid oxide fuel cell-based hydrogen-ready power plant in one of their datacenters, and implemented IoT-based tool for real-time tracking and monitoring of water usage effectiveness (WUE). It is the only datacenter company in India to be part of RE100 initiative. Additionally, Nxtra has the following certifications: ISO 50001:2018, IGBC/LEEDs Green, ISO 14001, ISO 45001, and ISO 22300.
- **Strong partner ecosystem and alliances.** Nxtra has a wide ecosystem of partners across different service provider types. These include most of the global hyperscale cloud SPs, tier 2 cloud partners, popular IT infrastructure providers, 1,200+ global carrier partnerships, systems integrators, IP peering, and channel partners.
- **AI-powered datacenter operations.** Nxtra has made substantial investments to integrate AI into its datacenters to build operational excellence. The company is leveraging AI to drive smart capabilities such as predictive maintenance, enhanced operational and energy efficiency, streamlined automation of operations, and optimized capex utilization.
- **MEITY empanelment.** Nxtra is a MEITY-empaneled member and can work with the government and public sector unit entities.

Challenges

As Nxtra continues to expand its footprint in India, it has to consider the intensifying competition from other local and global datacenter players that are also scaling their investments quite aggressively given the demand and government's push to improve the datacenter industry in India.

Nxtra still needs to develop and improve its partner ecosystem for offering AI infrastructure as a service as the market is steadily adopting AI-based applications, and investing in underlying GPU-based infrastructure to support AI workloads.

Consider Nxtra When

The requirement is to collocate critical workloads or for large built-to suite colocation requirements along with cloud adjacency services to build scalable, secure, and interconnected digital infrastructure. With the availability of datacenters across major tier 1 and tier 2 locations, Nxtra can provide multisite, single city, or multisite, multicity solutions along with end-to-end connectivity. Nxtra should be considered by organizations that are looking for a future-ready infrastructure,

strong cross connectivity between their on-premises datacenters, public cloud providers, and internet exchange and popular ISPs. Government entities can consider Nxtra for colocation and cloud services as it is a MEITY-empaneled member.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis or strategies axis indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed. Market share is defined as vendor revenue generated in India for FY23.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

This IDC MarketScape covers datacenter operations and management services, including datacenter outsourcing, colocation, managed hosting, and private cloud IaaS. Datacenter services can be found in three segments of IDC's taxonomy: hosted

infrastructure services, managed (support) services, and IT outsourcing and cloud services (for additional details, see *IDC's Worldwide Services Taxonomy, 2022* [IDC #US47769222, July 2022]).

Hosting Infrastructure Services and Private Cloud Services

Hosting infrastructure services (HIS) include the management of servers, networking, and other infrastructure solutions in a third-party datacenter SP. HIS encompasses activities related to the provisioning, management, and maintenance of the infrastructure that supports businesses' applications, which include activities around application development and deployment. The specific capabilities delivered under this umbrella typically include support for associated application infrastructure platforms (e.g., middleware, databases, and application servers), comprehensive infrastructure management, and systems-level (as opposed to server-level) administration in support of these application environments. Software-centric activities (i.e., middleware, operating system [OS], and database) are often performed by SPs as part of HIS engagements. HIS also includes any hosting services delivered on a virtualized infrastructure (commonly referred to as "private cloud"), in addition to services supported on a traditional dedicated physical infrastructure.

HIS engagements involve discrete, standalone offerings that are often function- or application-specific in nature. Thus, HIS can be distinguished from IT outsourcing by the scope of the service, the nature of the SLAs, the customers' responsibilities and involvement in service delivery, and the degree of service risk and operational control that is transferred to the service provider.

Given the ongoing transition to cloud models and the emergence of SPs' cloud-based hosting offerings, IDC has simplified the current segmentation of this HIS market into "traditional" or "noncloud" HIS and cloud-based HIS.

The revised HIS market segmentation is defined as follows:

- Traditional HIS. These services are delivered in a noncloud fashion and therefore do not conform to the cloud services attributes specified by IDC. Traditional HIS includes legacy shared hosting/virtual private server, dedicated hosting, and complex managed hosting. Traditional HIS typically shares attributes commonly associated with cloud hosting infrastructure (i.e., the ability to rent rather than buy IT infrastructure, standardized packaged solutions) but not others (e.g., self-service, pay-per-use pricing, and elastic scaling).
- Cloud HIS. These services combine the use of multitenant (shared) resources, radically simplified packaging, self-service provisioning, highly elastic and granular scaling, flexible pricing (often pay per use/pay as you go), and broad leverage of internet standard technologies to make offerings dramatically easier, cheaper, and better to consume. The cloud segmentation of the HIS market covers services offered by third-party providers, such as hosted

private/dedicated cloud and managed public cloud. The cloud portion of HIS does not include private clouds in captive datacenters or unmanaged public cloud/IaaS or virtual private cloud, which IDC has forecast in the document *Worldwide Whole Cloud Forecast, 2017–2021* (IDC #US43215817, December 2017).

- Colocation. This subsegment covers commercial/retail colocation services in which the service provider offers colocation services and related datacenter management systems. Colocation services are defined as a customer's use of a third party's datacenter facilities (i.e., physical floor/cage/rack space, network capacity and heating, ventilating, and air-conditioning [HVAC]/power infrastructure) in which the customer operates its own servers/storage systems, network equipment, and other types of infrastructure.

HIS also includes services above and beyond basic hosting functionality, such as equipment rental and maintenance as well as integrated managed services for functions such as storage, backup/recovery, security, and broader management functions, such as monitoring and help desk, which may be included as part of the HIS offering.

In concordance with IDC's demand-side methodology, HIS only includes services consumed by end users (including SPs in which the services provider is an end user) and explicitly does not include HIS that is simply resold by SPs, value-added resellers, or other entities.

Exceptions and Exclusions

Colocation services provided by nondedicated datacenters (e.g., office rental companies providing access to the internet as part of the charge for office space) are not included.

HIS provides infrastructure-driven management functionality that is not specific to a particular type of application. The definition excludes connectivity fees associated with remote access to the datacenter, professional services billed on a time-and-materials basis, and the resale of hardware or software. It also excludes enterprise application management, business process outsourcing (BPO), and application/business productivity functionality delivered via the software-as-a-service (SaaS) or software-on-demand model. As such, HIS does not include the hosted management of enterprise application software but does encompass management of middleware and other types of enabling, infrastructure-oriented software. For example, if the starting point of a client engagement is a request to "manage my SAP application instances," then IDC would define it as hosted application management.

IDC's Worldwide Whole Cloud Forecast, 2017–2021 includes HIS that features multitenant platforms, pay-per-use pricing, self-service capabilities, and all the other attributes commonly associated with cloud services. However, IDC's public cloud

forecast is a separate effort from the foundation markets defined in this taxonomy and, as such, the precise level of overlap has yet to be determined.

IT Outsourcing

IT outsourcing services involve a long-term, contractual arrangement in which a service provider takes ownership of and responsibility for managing all, or part of a client's information systems (IS) infrastructure and operations based on an SLA. Typically, IT outsourcing engagements involve contracts for which a large portion of the IS environment is outsourced, usually over a 5- to 10-year period, although the length of these engagements can be much shorter.

At the core of an IS/datacenter outsourcing contract is taking over the management of day-to-day operations of a datacenter and its systems infrastructure (either mainframe-based or through a "server farm") that supports an enterprises business application environment (e.g., enterprise resource planning [ERP], supply chain management [SCM], customer relationship management [CRM], and messaging). At the minimum, these engagements involve ongoing systems infrastructure management, which could include providing just remote infrastructure management but usually also covers providing the ongoing management (24 x 7) of one or more of the following services:

- Endpoint management (e.g., PCs, laptops, and smart devices)
- Local and WAN operations management
- Help desk support
- Datacenter/facilities operations (e.g., ongoing datacenter facilities management) (datacenter facilities can range from a small closetlike room to full-scale hosting centers, [e.g., tiers 1–4].)
- Application management (e.g., ERP, SCM, CRM, and messaging)
- Hosted application management
- HIS
- Cloud services (e.g., SaaS, platform as a service [PaaS], and IaaS)

The key attributes of engagements for IT outsourcing are as follows:

- **People.** Engagements may involve transferring (rebadging) client personnel or may not involve any transfer of client personnel to the provider.
- **Location of assets.** Assets (e.g., hardware) can either be located at the client site or hosted at the provider's own datacenters (hosted).
- **Ownership of assets.** Assets (e.g., datacenter facility, hardware, and software license) are either owned by the client or the provider.
- **Type of service.** Services involve either just dedicated (to one client) or a combination of dedicated and some shared types of services (e.g., cloud services, such as PaaS, IaaS, and SaaS), which are embedded as part of the

engagement. These cloud services are provided by either the primary service provider that holds the direct relationship with the client or can be sourced from another third-party provider but for which the primary provider is responsible for ensuring SLA.

- **Structure of service.** Services can be either customized or standardized.
- **Payment.** Payment can be made as either a fixed or variable fee (e.g., pay as you go).

IT outsourcing contracts can also include related consulting, development, testing, and systems integration activities. This can also include the design and build of a dedicated datacenter facility for the client, whether located at the client site or at the provider's hosting facility. Along with activities performed by the outsourcer's employees, an IT outsourcing contract can include (though does not always include) ongoing capital spending on new equipment and facility needs.

Exceptions and Exclusions

To maintain consistent IDC definitions, IS/datacenter outsourcing does not capture/include outsourcing/managed services engagements that involve just discrete elements of the IT/application environment. These discrete markets include:

- Network and endpoint outsourcing services (NEOS)
- HIS
- Hosted application management (HAM)
- Application management
- BPO (e.g., HR, finance and accounting [F&A], procurement, and customer care)
- Cloud services (e.g., PaaS, IaaS, SaaS, and business process as a service [BPaaS])
- BCDR

LEARN MORE

Related Research

- *Asia/Pacific (Excluding Japan) Datacenter Deployment Model and Spend Forecast, 2024–2028* (IDC #AP50951824, June 2024)
- *How Are Datacenters in Asia/Pacific Forming Strategies to Minimize Their Climate Footprint?* (IDC #AP50951924, May 2024)
- *IDC Survey Spotlight: AI Infrastructure at a Crossroad: Addressing Cost, Efficiency, and Edge Computing Challenges* (IDC #AP50952024, March 2024)
- *Market Analysis Perspective: India Datacenter Operations and Colocation Services Market Trends, 2023* (IDC #AP50326723, December 2023)

Synopsis

This IDC study utilizes the IDC MarketScape framework to examine, analyze, and evaluate the vendors operating in the India datacenter services market. The research employs a combination of quantitative and qualitative methods to assess the strategies and capabilities of vendors in meeting the requirements of technology buyers that are seeking datacenter operations and management services. The evaluation is conducted using a comprehensive set of parameters that are crucial for fulfilling the current and future needs of technology buyers. This IDC MarketScape report focuses on vendors in the India datacenter market that have presence and operational reach with at least one operational datacenter in the country.

"Datacenters play a very important role in planning, designing, deploying, and delivering modern digital infrastructure services to support the business objectives of an enterprise. In today's world, the role of datacenters has scaled beyond just providing colocation service to facilitating interconnected hubs for running modern-day applications, storing, and processing data to deliver the required digital services to customers," says Rajiv Ranjan, associate research director, India Cloud and Digital Infrastructure Research, IDC Asia/Pacific.

ABOUT IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. With more than 1,300 analysts worldwide, IDC offers global, regional, and local expertise on technology, IT benchmarking and sourcing, and industry opportunities and trends in over 110 countries. IDC's analysis and insight helps IT professionals, business executives, and the investment community to make fact-based technology decisions and to achieve their key business objectives. Founded in 1964, IDC is a wholly owned subsidiary of International Data Group (IDG, Inc.).

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