

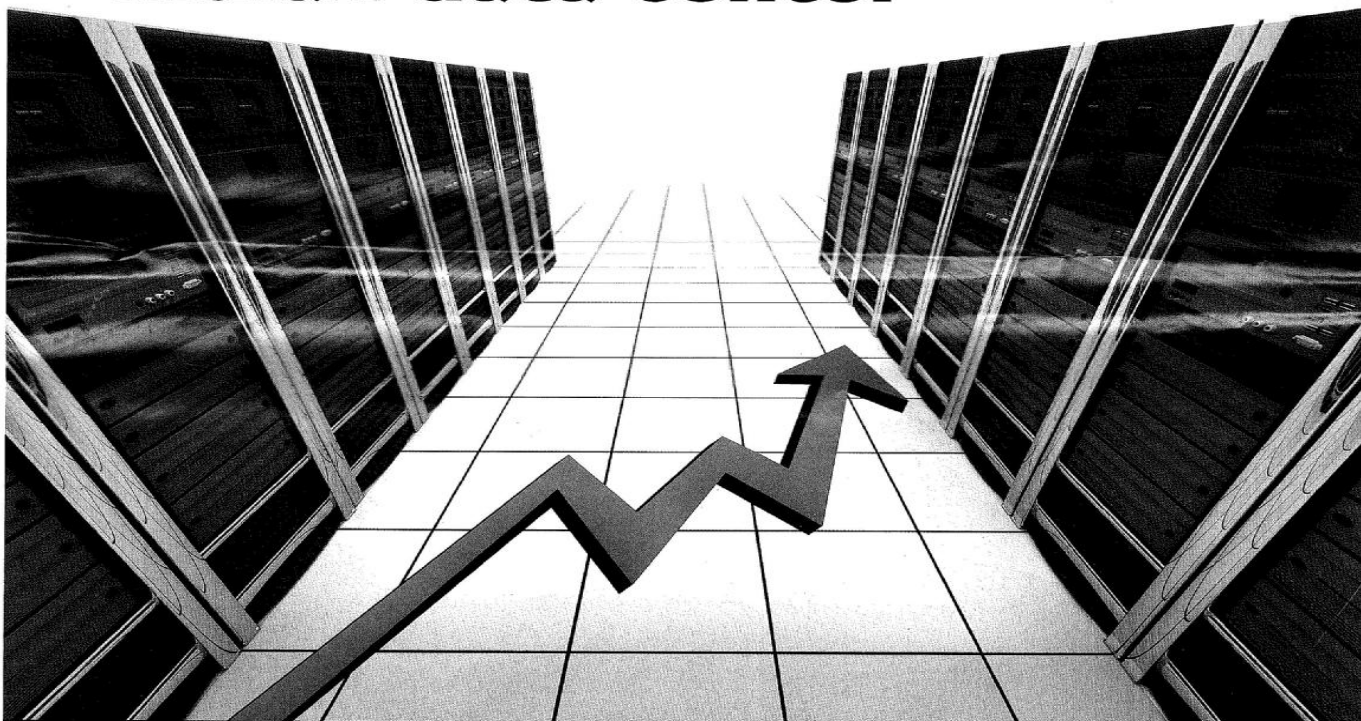
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# The transformation of the Indian data center



The Indian data center market is going through a transformation from being a rigid, siloed cost center to a flexible, transparent organization that wants to run IT as a business. **By Nivedan Prakash Page 5**

## Unified Communications as a Service

Like other enterprise technologies, Unified Communications is also available through the SaaS model. **Manjari Juneja** looks at the prospects of such offerings in India

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IBM's latest mainframes can incorporate POWER and x86 blades into their compute environment. **By Prashant L. Rao**

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## CIBIL implements CDC's Pivotal CRM

The need for a formal system to manage customer interactions propelled CIBIL into deploying a CRM package. **By Rajendra Chaudhary**

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The Indian data center market is going through a transformation from being a rigid, siloed cost center to a flexible, transparent organization that wants to run IT as a business. *By Nivedan Prakash*

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**A**fter showing signs of slower growth during the slowdown, recent months have seen the Indian data center market transforming into an agile and efficient networked environment that delivers innovation while providing access through any device to any content, anywhere.

The Indian data center market is witnessing changes in terms of bandwidth pricing as well as the usage of power and cooling solutions. With an

increased focus on the adoption of Green IT, enterprises and service providers are looking to build energy-efficient data centers through right sizing, improved system architecture and better design.

Besides, shrinking budgets, rising energy costs, an increased preference for outsourcing and the adoption of blade servers in data centers have led to new engagement and management models ranging from co-location services to pay-

per-use platforms.

According to IDC, the overall Indian data center services market in 2009 was estimated at \$1.39 billion. It is forecasted to grow at a CAGR of 22.7% over the period between 2009 and 2011, to touch \$2.2 billion by the end of 2011.

IDC also suggests that, growth in this market has been led by a quickly-evolving ecosystem consisting of data center hosting players, high-speed Internet service providers, system



Administrators need to manage storage across heterogeneous server and storage environments in a way that enables them to stop buying storage by leveraging storage resource management, thin provisioning, deduplication, storage virtualization and continuous data protection and recovery

Anand Naik, Director - Systems Engineering, Symantec India



Factors contributing to the growth of this market include the low cost of building infrastructure; the need to expand existing data centers, involving companies that had set up their centers back in early 2000 and are now running out of space; and the consolidation of IT infrastructure

Shrirang Deshpande, Director - Data center Services, Emerson Network Power India



The data needs of enterprises are increasing at a rapid pace and so is the space requirement for data centers. With the increasing awareness and improved service-level agreements, the adoption of services provided by third-party data centers is increasing

Ekta Aggarwal, Program Manager - ICT Practice, Frost & Sullivan, South Asia and Middle East

integrators and hardware vendors. In 2009, the verticals that accounted for 80% of the revenue of third-party data center services were manufacturing and IT/ITES. In 2009-11, BFSI and manufacturing were expected to show high levels of deployment and captive data centers were projected to grow at a CAGR of 19.9%.

As per some industry experts, the commercial data center market has grown between 30% and 50% during the last year. In-house data centers haven't grown quite as much, as companies have displayed an affinity to host in commercial data centers rather than create fresh data center facilities.

The likelihood of data center hosting in India becoming cheaper has gone up as bandwidth costs have dropped. There is heightened interest in the implementation of technologies such as cloud computing and grid computing in data centers.

"The hosted data center model is gaining traction with enterprise customers due to the lack of in-house skills, large investments, long gestation period and the agility and flexibility that is built into hosting models. On the other hand, for the SMB market, as the adoption of IT increases, data center hosting is gaining ground as the best choice to get enterprise-class services without huge upfront investments," pointed out Ajay Soni, VP - Infrastructure Management Services, Patni.

### Pushing the cause

The factors that have led to the growth of the hosted data center market here in India are poor telecom and power infrastructure at the disposal of Indian organizations for data center hosting and the large number of smaller organizations preferring to obtain data center services from a third-party rather than investing in infrastructure for providing the same.

Ekta Aggarwal, Program Manager - ICT Practice, Frost & Sullivan, South Asia and Middle East, said, "The data needs of enterprises are increasing at a rapid pace and so is the space required for data centers. With increasing awareness and improved service-level agreements, the adoption of services provided by third-party data centers is increasing."

Sanjeev Gupta, Country Leader - Data Center Services, IBM India, said, "Data center growth can be attributed to factors like investments on IT infrastructure by the central, defense, and state governments; integration of technology with business; and the need to comply with regulations. With concerns such as operational cost and energy efficiency looming

large, it has become imperative for organizations to invest in scalable modular data centers that deliver the necessary quality in terms of capacity, availability and security requirements."

The Internet user base has almost doubled from 2007 to 2009 and with the growth in the middle class, consumer spending has increased that has translated into demand for e-commerce and online travel, employment, e-learning and matrimonial services. This has pushed Internet service providers and third-party data centers to continue expanding their data centers.

The introduction of disruptive technologies in server, network and storage virtualization have had CIOs readying themselves for growth in the future by investing in these technologies.

According to Sumit Mukhija, National Sales Manager - Data center, Cisco India and SAARC, growth in the data center market is along three vectors. The first being infrastructure to support strategic initiatives and new business systems. The second is investment in support of non-specific business functionality such as disaster recovery/business continuance, regulatory compliance, etc. The final vector is to address operational gaps such as power and cooling capacity.

"Three factors have contributed to the growth of the data center market in India namely the low cost of building data center infrastructure; the need to expand or upgrade existing data centers, wherein companies that had set up their critical space in early 2000 and are now running out of space due to which there has been a flurry of retrofits, upgrades and new projects; and the consolidation of IT infrastructure," asserted Shrirang Deshpande, Director - Data center Services, Emerson Network Power India.

As the economy further strengthens in 2011 and IT adoption in SMBs rises with a view to achieve business growth objectives, this segment is expected to become the next growth driver for third-party data center services.

### Impact on the industry

According to Gartner, the Indian data center market will rapidly expand in the next five years. Here, we will take a look at how this affects the strategies of the hardware suppliers, application and middleware companies and services organizations.

Due to growing demand and rapid expansion of data centers, several strategic changes have been witnessed amongst hardware suppliers, application and middleware companies and services organizations. The growth of the data center market will lead to an increase in the use of virtualization technologies in these data cen-

ters and that will, in turn, require a new mindset for these organizations. They need to build their product or service offerings that tie these offerings to the business benefits of data center virtualization.

Ashwin Waknis, Account Manager - Cloud and Virtualization Competency, Persistent Systems, pointed out, "EAI product offerings and services need to expand their portfolio to include new integration end points in the cloud. Hardware vendors will have to build virtualization-ready infrastructure components including servers, SANs and network equipment. Application companies will have to start planning on what architectural changes they would have to make to their application for it to be virtualization- and cloud-ready by making their application SOA-enabled and less chatty, for example."

"There will be increased synergy between the hardware OEMs, software companies and the service provider organizations. Globally, there has been a change in the way that products are being offered. There is a shift from license-based software to pay-per-use and OPEX-based pricing as against CAPEX for hardware. Service provider organizations will have a larger role to play in providing end-to-end solutions to the customer," said Prashant Pereira, Product Manager - Hosting Services, Sify Technologies.

Data center complexities can be reduced by adopting software that supports heterogeneous environments and eliminates islands of information, this is particularly important for mid-sized enterprises. Organizations should deploy deduplication closer to the information source to eliminate redundant data and reduce storage and network costs there by enabling better data center performance.

"Data center administrators need to manage storage across heterogeneous server and storage environments in a way that enables them to stop buying storage by leveraging new technology adoption such as storage resource management, thin provisioning, deduplication, storage virtualization and continuous data protection and recovery. Organizations leveraging a holistic approach to storage management can control storage budget growth and often postpone storage purchases," added Anand Naik, Director - Systems Engineering, Symantec India.

Given the huge operating costs incurred by data center operators on power bills and space rentals, the data center services market is surely starting to look attractive to many enterprises that had traditionally maintained in-house data

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centers. Therefore, consolidation and virtualization are the technologies that not only generate greater value from existing infrastructure but also avoid the wastage of resources due to duplication and lack of utilization. The strategies of hardware suppliers, application and middleware companies and services organizations will revolve around incorporating these technologies into their products and making them flexible, manageable, scalable and easy to maintain.

According to Vinod Tete, VP - Shared Services Business Unit, NIIT Technologies, large hardware players would create their own Infrastructure-as-a-Service (IaaS) offerings along with a hosting provider. Computing as an utility would co-exist with dedicated data centers depending upon the size of the organization and the type of application. This would present a unique opportunity to the aggregating organizations such as service providers to create blended offerings and run the same for their customers.

## Vendor strategies

Since the number of players in the competitive market has increased with each player defining its own value proposition based on its product or service offerings, getting a critical volume of the market opportunity will be based on the ecosystem created along with strategic alliances to be close to the customers and having a complete portfolio of services.

Surajit Sen, Director - Channels, Marketing and Alliances, NetApp India, said, "After toying with the idea of virtualization over the last couple of years, customers looking for better returns from their storage solutions have started deploying virtualization in their data centers. As businesses need to cut costs and yet operate effectively, saving huge costs on running and maintaining an efficient, cost-effective data center can go a long way."

Subhashini Prabhakar, Chief Technology Manager, Dax Networks, added, "In the present scenario there are too many market players involved in the data center business. The customer decides based on quality, features, brand name and, of course, pricing. Any competitor who can satisfy this requirement of a customer is being considered. Hence, in order to withstand heavy market competition, it becomes necessary for vendors to stabilize their organization, products, and alliances."

Jitendra Gupta, Country Manager - India, Extreme Networks, was of the view that vendors had to closely align themselves with surrounding technology players—including vendors of storage, server and even cabling technology—in order to best address the changing data center and ensure that a proprietary approach is not taken while building a data center.

Also, vendors who engage in alliances now have an early mover advantage resulting in higher market share, higher revenue and valuable experience of working on the service provider models. These ven-

dors will be a partner of choice to the service provider when the service provider expands the current setup or creates newer, associated services.

## Predictions

As per industry estimates, the Indian data center services market will grow at over 20% through 2011. Demand for floor space for data centers will remain strong for the next couple of years. Hosting space will grow faster than corporate captive data centers. Companies are looking to reduce operational costs, in response to the increasing demand for data center capacity, enabling continuous technology change and thereby improving the resilience and security of their infrastructure.

The data center market is expected to mature and incorporate a unified approach while integrating various services across the network. Virtualization technologies are dramatically changing the way infrastructure will be provisioned and managed in future. Today's emerging data center architectures are an obvious response to business, technological and global challenges. Since virtualization integrates various resources into a common pool, resulting in enhanced resource utility and allocation both internal and external to the business and its units, managing the various components of the network will be easier. ■

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