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The middle path

*While concepts such as ILM are still far away, mid-sized businesses are adopting technologies such as IP SAN and NAS, says **Venkatesh Ganesh***



Medium-sized businesses are investing in technologies such as NAS and SAN. 21 percent of the respondents have a SAN in place, while another 16 percent have invested in NAS. While the percentage of the respondents having a high-end storage infrastructure is still on the lower side, medium-sized enterprises grappling with their storage needs are looking to raise the ante this year.

25 percent of the respondents plan to invest in SAN, while 26 percent plan to do so in NAS. A significant percentage of this base has also invested in storage management software.

IP SAN—the preferred option

Most companies that lack a SAN prefer an IP SAN to traditional FC SAN. Om Logistics, one of the biggest players in the logistics space, is considering an IP SAN to address its booming storage needs. The company feels that it can ensure faster data replication with an IP SAN. Another value proposition of IP SANs is the comparatively low cost, making it attractive for mid-sized companies.

Says B Chandrashekar, Country Manager, Intransa, "Operating costs are lower with an IP SAN, as skilled manpower is not required." As IP SANs use the iSCSI protocol, they offer SAN-like functionality over TCP/IP and Ethernet. Ethernet is significantly cheaper than optical fibre. Another attractive proposition for mid-sized enterprises looking for a cost-effective DR practice is that iSCSI facilitates data transfer over a WAN. Hence, IT teams can remotely manage storage.

Another factor that increases the probability of IP SAN adoption is its manageability. This was one of the reasons that prompted Supreme Industries, a plastic manufacturer, to consider an IP SAN. The company sells a range of plastic products in the domestic market, which include PVC pipes and fittings, moulded furniture, crates and packaging films. As every division



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generates huge amounts of data, there is a need for an IP SAN. Says Bhavesh Yekaria, Head IT, Supreme Industries, "The open architecture of IP SANs helps us manage our storage requirements with ease." Demand for IP SANs is also coming from B&C-class cities.

K S Ramanujam, General Manager, Data Management and Storage Business, Sun Microsystems India, explains, "Customers in B&C-class cities generally go for data capacities ranging from 5-10 TB, which can be easily met by an IP SAN."

As medium enterprises grow, they will need to move from DAS to SAN. Chandrashekar says that, as storage requirements spiral out of control, many mid-sized enterprises are finding it difficult to track and manage data on each individual server. Not only are IP SANs easier to manage, they also promise better utilisation as they make storage available across the network. Companies can dynamically provision storage for individual hosts and expand volumes for individual applications or users without disruptions or server downtime. Each time a company needs to add storage, the administrator just has to mount a new disk enclosure in the rack and plug the Ethernet cable to the Gigabit Ethernet switch. The storage controller automatically recognises new disks and makes free space available for the IT staff to provision. IT administrators can manage and monitor the entire system, automate tasks and even assign individual volumes. These features, along with a compelling cost proposition vis-à-vis FC SAN, have made IP SANs the preferred option.



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 Intransa

NAS—on the horizon

Although only 16 percent of the respondents have invested in NAS, this is set to increase to 26 percent. Most medium enterprises are looking to deploy NAS for file sharing, online backup and offline storage data management.

Consolidating backup and data storage from file, print and e-mail servers is another area where NAS devices are being deployed.

Affirms Pankaj Parikh, Corporate IT Manager, Zandu Pharmaceuticals, "Till date, we have been using a Novell NetWare server. As our storage needs are increasing, we plan to go for a NAS device." The company has set aside a budget of Rs 10 lakh for the same.

Easy manageability of NAS is driving adoption. Believes M D Dhodapkar, Deputy GM, The United Western Bank, "The only tasks required to operate a NAS are assigning an IP to the device, tweaking the necessary settings and putting it on a TCP/IP network." Currently, the bank has a set-up that is predominantly DAS. Players such as Network Appliance and HP are educating the mid-market about the benefits of using NAS.

Another company that has benefited from NAS is Cummins Diesel Sales and Services India. Avers Neelesh Bhave, the

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company's Manager - IT, "As each product component generates a lot of data, it does not make sense to go for traditional DAS as this data needs to be quickly accessed by different departments."



Organisations are consolidating their storage to a central location because they realise that a flexible, consolidated infrastructure can reduce their spending
Avijit Basu
 Country Manager
 StorageWorks
 Division
 HP India

Agrees Avijit Basu, Country Manager, StorageWorks Division at HP India, "Organisations are consolidating their storage to a central location, because they realise that a flexible, consolidated infrastructure can reduce their spending on storage."

In a DAS environment, if a server goes down, data on that server is no longer available. With NAS, the data is still available on the network and users can continue to access it. Also, the benefit of using a NAS device is that, in an environment running different operating systems, storage can be centralised in a scalable set-up. When additional storage is needed, another NAS device can be added without bringing down the network.

While some medium-sized enterprises are looking at adopting networked storage, most continue to add servers as their storage requirements grow.

Comments R Ramaseshan, Managing Director, Karnataka State Beverages Corporation, "We have a system where the server replicates the data to hard disk drives on specified PCs. This is then backed up on to CD-Rs and tapes, which are then physically moved to another building and stored as a backup. Every evening, a person replaces the fresh updated data and removes the earlier version."

While a networked storage infrastructure can do wonders for the company by reducing backup time, the company is hesitant, as it is not sure of the feasibility of such a solution. This is indicative of many companies which would benefit from a networked storage infrastructure but do not have the confidence to deploy the same. Vendors need to educate users about the benefits of networked storage.

ERP and disaster recovery

42 percent of the respondents felt that ERP and security requirements were driving storage needs. Another factor that is pushing storage demand is the adoption of disaster recovery (DR) practices by medium-sized companies. The primary objective of a business continuity plan is to enable an organisation to survive a disaster and to re-establish normal business operations. 57 percent have a DR practice in place. Additionally, the spend on DR is set to rise from 1 percent to 5 percent.

However, managing and backing up individual storage in multiple locations can be a logistical nightmare. Om Logistics, for instance, relies on tape backup. Data generated at

Research highlights
<ul style="list-style-type: none"> • 21 percent of the respondents have a SAN, while another 16 percent have invested in NAS. • For future deployments, IP SAN is preferred vis-à-vis FC SAN.

each location averages 1 TB. When you multiply this figure by 120 locations, the volume of data generated is huge. Replication and disaster recovery were, therefore, becoming a problem. The company is contemplating a network storage infrastructure as it will help speed up backup and retrieval.

- ERP and disaster recovery practices are driving storage spending.
- Vendors need to create awareness about ILM.

Says Agendra Kumar, Country Manager, Veritas Software Solutions, "Businesses that deal with transactions and customer data need effective backup to mirror their data to remote locations." He adds that the company's backup solutions are finding increasing demand in B&C-class cities.

Enterprises are also looking at data mirroring in multiple locations. Companies such as Zip Telecom, Privi Organics, Elder Pharmaceuticals and Fenner India are looking at establishing DR sites that can take over operations in case of a disaster.

Padmanabhan Venkatesh, Senior Manager, IT, Fenner India, affirms, "We intend to put a business continuity solution in place." This is extremely important as the company exports to over 100 countries and has a portfolio of more than 3,500 products. As the data generated with respect to sales and product information is considerable, the company is implementing a DR strategy.

Similarly, storage management software for ERP is finding acceptance among 'medium' enterprises. Comments Nandu Bhatt, GM, IT, Zip Telecom, "We have deployed Veritas' BackupExec for backing up data and it forms a crucial part of our DR strategy."

Most mid-sized businesses are also looking at the storage perspective as a part of their DR plan. K Vishwanathan, Manager, IT at L G Balakrishnan, explains, "To date, we used to back up data on to tapes. However, the need for faster backups with better disk utilisation is leading us to consider deploying a SAN." Similarly, Rane Brake Linings is considering using a NAS box to improve its LAN performance by ensuring a server-free backup.

Similarly Zandu has implemented SAP and it plans to put a networked storage infrastructure in place.

Data generated by ERP systems is driving the demand for storage software. Currently, storage vendors provide storage software for ERP solutions to automate data backups. The software lets administrators back up data from multiple ERP servers on to a single one.

ILM—so far away

While Information Lifecycle Management (ILM) has been projected as a concept for large enterprises, awareness of the concept in 'medium'



enterprises is building. 22 percent have an ILM strategy in place. For example, United Western bank has crafted a strategy where newly created or acquired data is available on disk while older data is retained on tape.

An ILM strategy is important for medium-sized organisations too. According to Manoj Chugh, President, EMC India and SAARC, "An ILM strategy is essential for medium-sized organisations as many of these companies have built their storage infrastructure as off-the-shelf applications. It suits them initially, but with growth their storage needs rise and they need to have a mechanism in place to ensure cost-effective data access."

An ILM strategy can also help trim storage costs. Says George Thomas, Country Manager, Network Appliance India, "Organisations cannot afford to keep non-critical or stale data on expensive primary storage for long. An ILM strategy can help identify non-critical data and move the same to inexpensive mediums such as CD-Rs."

Some medium-sized organisations are looking to adopt ILM as part of their compliance requirements. While regulations are driving organisations to ILM globally, not many Indian mid-market companies are looking at this concept. Although regulatory compliance is a relatively new area in India, regulations such as the Sarbanes-Oxley Act, the Gramm-Leach-Bliley Act and SEC 17 a-4 are forcing organisations to frame a strategy. Compliance is also going to directly or indirectly affect India Inc. For instance, any Indian company trading on a US stock exchange has to follow SEC 17 a-4. This regulation requires all companies trading on the US stock exchange to maintain their trading records for seven years on undeletable storage.

Indian BPO companies dealing directly with US-based firms need to maintain the same level of standards that are prescribed for their US counterparts. Avers Arun Sowdas, IT Manager, Allsec Technologies, a Chennai-based 700-seater BPO outfit, "We service a lot of US clients, and for some of them we need to abide by the Sarbanes-Oxley Act. This requires us to maintain records of every transaction. As a consequence, our storage needs have risen." The company plans to put a full-fledged ILM strategy in place.

Besides BPOs, pharmaceutical outfits are also looking at ILM. 29 percent of the companies have or are planning to invest in this concept this year. Amish Parekh, Manager - IT, Dishman Pharmaceuticals, an exporter of bulk drugs and speciality chemicals, opines, "Since we are looking to export drugs to the US market, we have to abide by HIPAA. This requires us to keep data for seven years." Dishman is considering an ILM strategy based on its existing NAS environment.

Companies in the mid-market have a distinct advantage vis-à-vis large enterprises, as they can evaluate technologies before taking a 'go' or 'no go' decision. For example, not having a SAN infrastructure in place has given these firms a chance to experiment with IP SANs.

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