

Overwhelmed with data



How are companies managing to store and protect their rapidly growing information?

MANY COMPANIES NOW have more data than they can handle, and are struggling to find ways to store and protect their vital information without pushing IT costs through the roof. Yet in building a solid foundation for their IT infrastructure, some are also opening the door to greater innovation and competitiveness.

This year's PMP Research survey – see box, below – underlines the sheer scale of the problem organisations face.

The majority (82%) of those polled maintain that data volumes within their company have risen substantially compared to two years ago (see Figure 1). As a consequence, storage requirements are also up significantly, according to 86%.

In some cases, the levels of increase are little short of phenomenal, with 2% of our sample reporting more than a 200% rise in the amount of data their company now holds and 6% claiming storage needs have similarly gone up by more than 200%.

Such experiences may be the exception rather than the rule, but one in five (20%) reckon that data volumes are now up by between 25% and 50% on previous years and the same proportion note a similar increase in demand for storage.

Adding half as many storage units every year poses serious difficulties in terms of finding the physical space for the equipment, managing the load on the corporate network, and determining just where and how information is archived and retrieved.

Given this background, it comes as no surprise that most of the companies in our survey have tried to reduce or consolidate the number of servers in use as a first step towards gaining more control.

A third (33%) have sought to rationalise the number of servers they use, and an even greater proportion (41%) intend to do so within the next two years. Only 12% say they have never attempted to do this and have no plans to do so in the immediate future.

More significantly still, several individual responses to this question suggest that server rationalisation has become 'an ongoing process', where the situation is always under review and the organisation tries at all times to look for efficiencies in this area.

As to why companies are actively seeking to reduce their server count, the survey finds they are hoping to achieve three goals.

As Figure 2 shows, those key benefits are improved business continuity and disaster recovery planning, cited by 90%, improved management controls (80%) and reduced costs (78%).

On one level, it makes obvious sense to cut down on the number of servers being used. Fewer boxes means a smaller financial outlay and easier monitoring and control – both arguments that are likely to appeal to cash-strapped institutions.

But from a strategic point of view, it is significant that companies also highlight the potential to manage their business continuity planning by taking this course of action.

Rather than viewing business continuity as a separate exercise, most firms accept that planning how to cope with any kind of disruption to basic services is inextricably linked to how they manage their IT infrastructure on a day-to-day basis.

Individual 'housekeeping' chores such as software patch management or overnight backups – which have commonly been seen as part of the company's security or disaster recovery activity – are now recognised as elements in the smooth running of the infrastructure as a whole.

The shift is away from viewing such activities as separate tasks towards taking an holistic approach to the underlying processes.

There can be other benefits from adopting this new 'joined up' attitude, as the survey makes clear. We asked the respondents to assess their overall aims with regard to their IT infrastructure, using a scale of 1 to 5 where 1 indicates 'of no importance' and 5 represents 'very important'.

The results reveal an interesting development (see Figure 3). While the desire to make the IT infrastructure easier to monitor and maintain scores highly (4.08) as does the requirement to reduce infrastructure maintenance costs (4.00), these are not considered as important as making the IT infrastructure more flexible and thus being better able to meet new business demands (4.22).

In comparison, reducing the costs of investing in new infrastructure items comes well down the list (3.74). Companies now recognise how crucial their IT infrastructure is to the success of their operations and so their ambition is to make it as responsive as possible, rather than simply wanting to do more for less money.

However, while this may be the case at a strategic level, there are several stumbling blocks along the way down at the sharp end of operations.

We asked our sample to identify the key reasons why data and storage volumes have increased so dramatically, again using a 1 to 5 scale. The aggregated scores reveal greater use of email is the main culprit (3.61), followed by archiving

or backup requirements (3.23) and the growing number of desktop PCs (2.98). Several replies also mention the wider adoption of image systems, which are very storage hungry.

In fact it seems that the end user community is often to blame for soaring numbers of data records, rather than the organisation as a whole.

Innovations such as e-business and internet applications (2.94), departmental systems (2.72) and CRM applications (2.18) are viewed as much less problematic when it comes to building up data volumes and the storage needed to accommodate them.

The majority of companies (71%) are taking steps to control the use of email. These include limiting the size or number of attachments (54%), introducing archiving guidelines (40%), limiting employees' personal use (34%) and changing the procedures for sending mailings to contact lists (30%). Limiting the size of mailbox for each employee emerges as another popular option.

Around a third (34%) rely on such internal procedures and processes alone, while just 3% leave it all to technology such as email storage management systems. Most companies (37%) are likely to use a mix of these two approaches.

When it comes to storage, companies are starting to move away from traditional direct attached storage (DAS) in favour of newer, networked choices: 46% currently use DAS but only half that amount (22%) expect to do so in future.

In contrast, 42% are already using storage area networks (SAN), with 44% planning to do so over the next two years. Half (52%) are currently using network attached storage (NAS) with 30% heading down this route over a two-year timeframe.

We asked our sample to assess the key issues they face in storage selection, using the 1 to 5 scale to rate importance. The results show that the critical question is total cost of ownership (4.12), followed by the business continuity faculties offered (3.84) and the onsite backup or archiving options (3.64).

Slow moving

Despite the fact that storage volumes are climbing, companies are only slowly introducing active measures to try and curb this trend.

Currently, only 20% of those in our survey offer user departments a fixed allocation of storage, compared to 72% who do not, although another 14% are planning to adopt this approach in the future.

In general, companies are divided about how stringently they attempt to control their IT infrastructure.

One of the most common ways is to draw up a series of service level agreements (SLAs), to define what services the IT department will provide and to monitor the performance and quality of those services.

Yet surprisingly, 39% of our respondents do not use this facility (see Figure 4 on page 3). Rather more encouragingly, 33% have SLAs in place and take care to ensure they are written to cover both business aims and IT-specific goals. A further 18% express SLAs purely in business terms, while just 8% concentrate on IT targets such as levels of network downtime.

Better still, in half (50%) of all cases the SLAs which relate to IT infrastructure or business continuity planning are linked to some of the organisation's key performance indicators (KPIs), thus tying the business and its IT function more closely together.

Another example of this is the trend towards operating a chargeback system for IT services, whereby user departments pay for services used – a concept which 28% of our sample have adopted. However, only 18% claim there are financial payments or penalties if agreed volumes or service levels are breached.

But in general, companies are still ambivalent about how seriously they take business continuity and IT infrastructure issues. While the majority (94%) declare that they have an overall IT infrastructure management strategy, that is handled at board level in only a third of cases (see Figure 5).

Similarly, while 49% attempt to measure how increased IT spend delivers improvements in business performance or increased productivity, 43% do not. And although 53% try to benchmark the performance of their IT systems and infrastructure against other similar companies in their sector, a third (35%) have not tried to do this.

External events are having some impact on how companies view their IT infrastructure. For example, 55% of those polled reckon that recent events such as the well-publicised MyDoom virus attacks have made their organisation more aware of business continuity and security concerns.

However, internal procedures to reduce the problems companies could face from such attacks vary considerably. While 45% of those polled say their organisation regularly conducts risk assessments to find out which applications or business areas are most vulnerable to breaches in IT security, 31% only do so once a year and 14% seem happy to leave it up to fate.

There is also the question of what impact recent or proposed legislation in the areas of data privacy and corporate governance will have on organisations' plans to keep corporate data secure.

A quarter of our sample (25%) have already introduced new software to handle this requirement, and 22% plan to do so in the future. But of the remaining half of the sample, 29% reckon that while such legislation will affect their operations they will not be using any new software to meet requirements; 10% state the new legislation has no such impact; and 8% cannot gauge the impact.

Given the many different elements that need to be juggled, plus the constantly changing nature of the requirements and the threats which IT systems must meet, many companies are tempted to hand the problem over to someone else.

More than half (59%) are already using a managed services or outsourcing partner to handle some of their IT

infrastructure or business continuity requirements, and the same proportion (59%) plan to do so in the future (see Figure 6).

There are some obvious attractions to doing this, not least the chance to switch to a fixed price for specific services. But as the PMP Research survey demonstrates, companies are not trying simply to pass the buck in this crucial area.

Most are aware of how essential it is to manage both IT infrastructure requirements and business continuity as a seamless whole, if the organisation is to be able to respond quickly to opportunities and threats.

Few are as successful as they would like in achieving this goal, but the necessary technology and processes are all there, if they can only find the will to use them effectively.

● If you are interested in this study, please contact Steve Markwell at PMP Research. Email: stevem@pmp.co.uk.

SURVEY STATISTICS

For the survey, we asked a broad cross-section of companies for their opinions on a range of business continuity and IT infrastructure issues. The sample was weighted towards larger organisations, as these often face the biggest challenges in both storing and protecting vital corporate data.

More than half of the sample have a turnover greater than £150 million, with 30% falling into the £150 million to £1 billion bracket and 10% in the £1 billion to £5 billion range.

Further down the scale, one in five (20%) of those polled have a turnover of between £10 million and £50 million, while 14% are in the £50 million to £100 million range.

The industry backgrounds of our respondents are varied and include companies active in distribution, the chemical & pharmaceutical industry, retail and education.

Two key areas are well represented: financial services (22%) and public services (22%). For both of these, keeping information safe whilst controlling costs is critical.

FIGURE 1: Growth in data and storage volumes

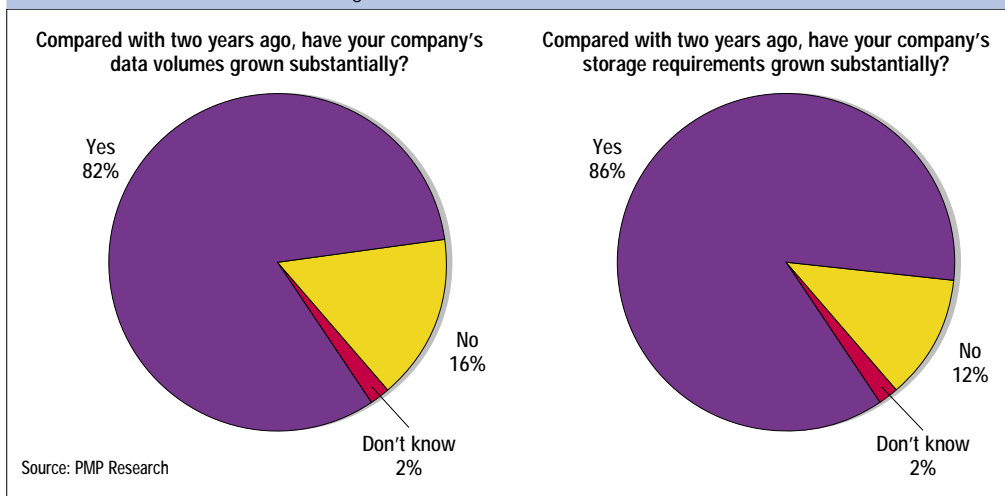


FIGURE 2: Key benefits of reducing number of servers in use

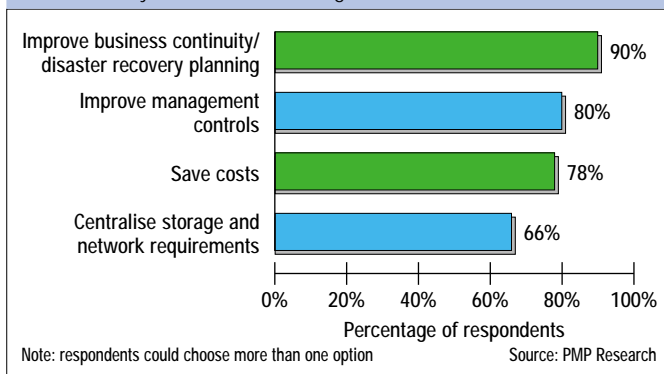


FIGURE 3: Organisation's key aims for IT infrastructure

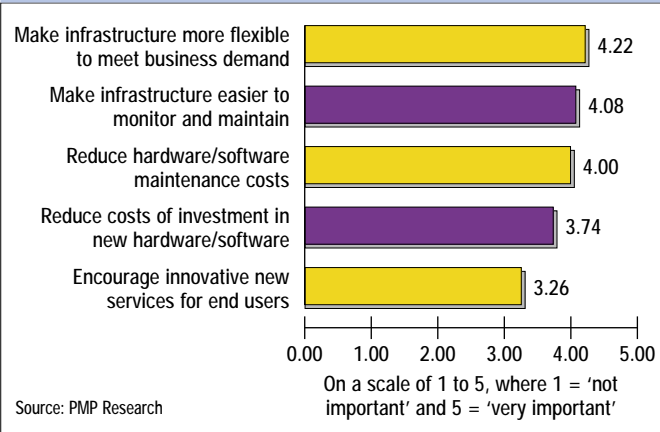


FIGURE 4: Does organisation use service level agreements?

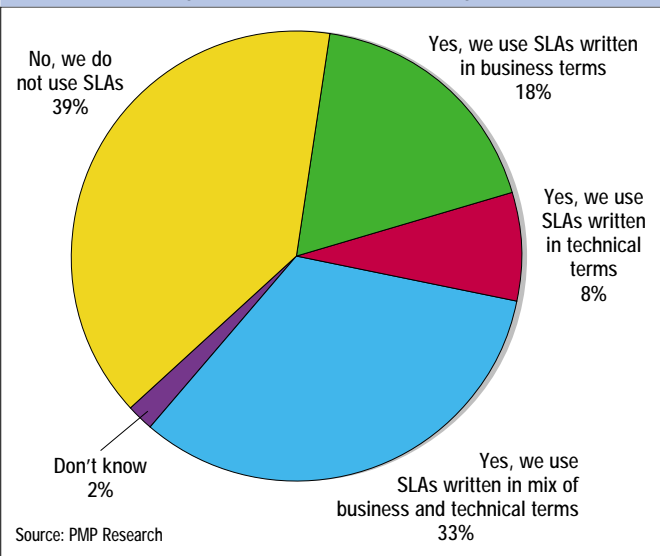


FIGURE 5: Does organisation have IT infrastructure strategy?

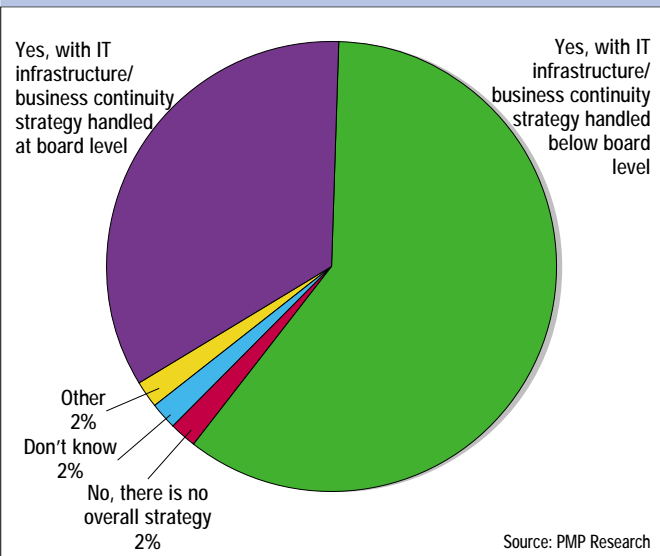
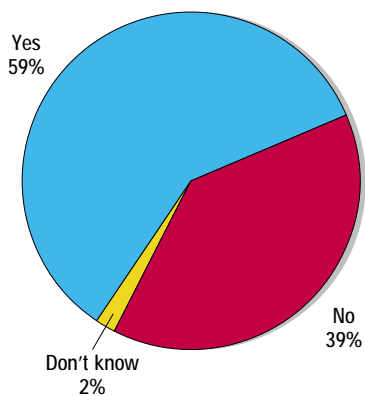
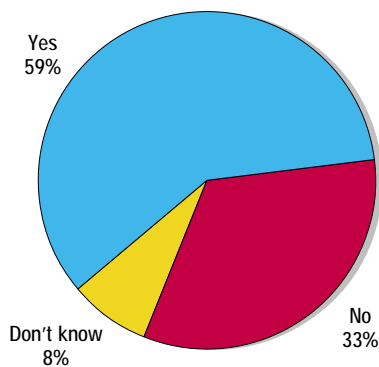


FIGURE 6: Use of managed services/outsourcing

Do you currently use a managed services or outsourcing partner to handle any of your IT infrastructure or business continuity requirements?



Do you plan to use a managed services or outsourcing partner to handle any of your IT infrastructure or business continuity requirements in the future?



Source: PMP Research