

CENTRE OF ATTENTION

A wide range of business issues, including reducing your carbon footprint, is bringing IT infrastructure management to the board's attention. Cliff Mills analyses our latest research findings among UK IT end users.

The spotlight is now firmly focused on IT infrastructure. As companies continually seek to improve their operational efficiency and reduce costs, so likewise the IT environment must become more adaptable, responsive and cost-effective.

IT managers are also faced with increasing security concerns, in terms of protecting data and ensuring their systems can provide the level of service and business continuity demanded. In addition, as new technology emerges, this has to be factored into the equation. Oh...and by the way, can you also become 'green' and more environmentally friendly?

With all these pressures, it is essential that companies develop a coherent strategy to manage their overall IT infrastructure and ensure it meets the changing needs of the business.

Our recent survey into IT infrastructure issues shows a healthy 78% of companies have this kind of over-arching strategy – though that still leaves a significant 22% who are functioning on an *ad-hoc* basis.

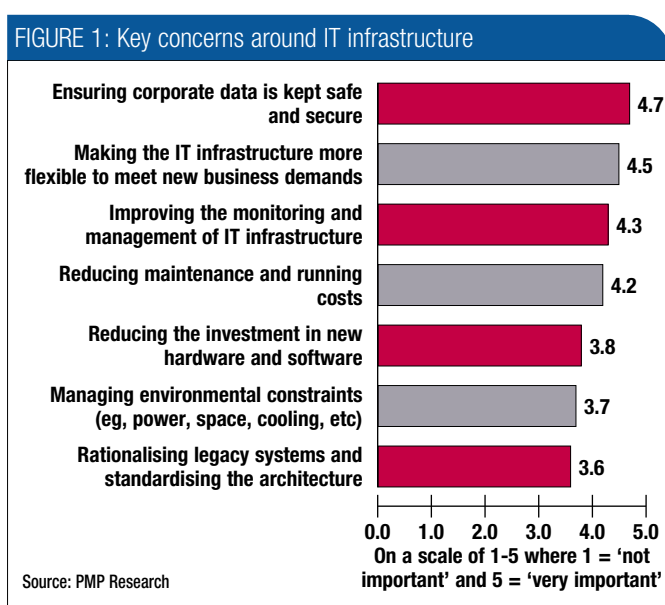
Among those with a strategy, 62% say that it is a board-level matter, which demonstrates how seriously many companies take the issue.

We asked our respondents to rate some of the key issues they face with their IT infrastructure on a scale of 1 to 5, where 1 equates to 'not important' and 5 to 'very important'.

Top of the list (see Figure 1) is the need to ensure corporate data is kept safe and secure, with a very high score of 4.7 – emphasising the need for continual alertness in protecting both the organisation's and its clients' information assets.

Not far behind, with a score of 4.5, is the demand to make the IT infrastructure more responsive and flexible to meet new business requirements, highlighting the pressure on the IT department to modernise the underlying architecture.

Improving the monitoring and management of the IT environment – so that any problem areas can be quickly identified and rectified – is also rated highly at 4.3. In many ways this goes hand-in-hand with reducing the maintenance and running costs of the IT infrastructure, rated at 4.2.



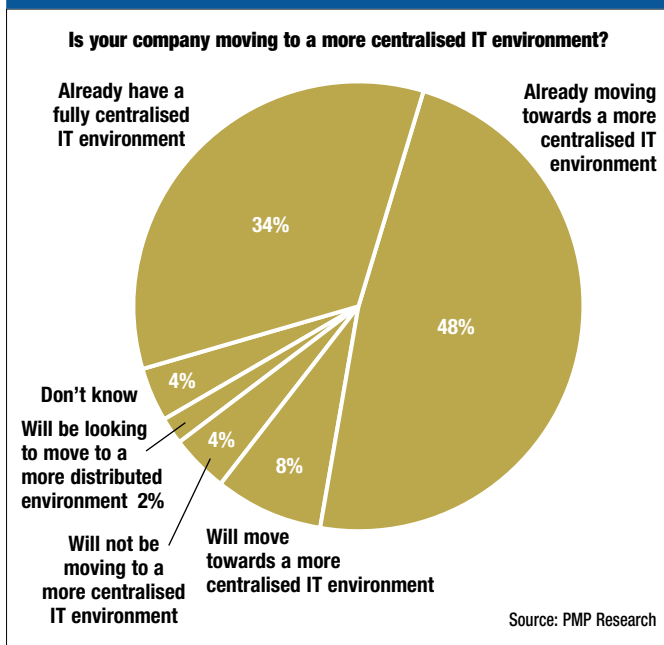
Similarly, the pressure is on IT managers to cut the cost of investment in new hardware and software infrastructure – rated at 3.8.

A relatively new issue for IT organisations is to be more aware of the environmental impact of their infrastructure (3.7) and reduce its overall carbon footprint. The rationalisation of legacy systems and standardisation of the IT architecture (3.6) also concerns respondents.

Centralisation

Over the last few decades the trend has been towards distributed and departmental systems, but this has started to reverse with a move towards a more centralised environment in order to save costs, become more efficient and to provide a more secure environment.

FIGURE 2: Trends towards centralisation



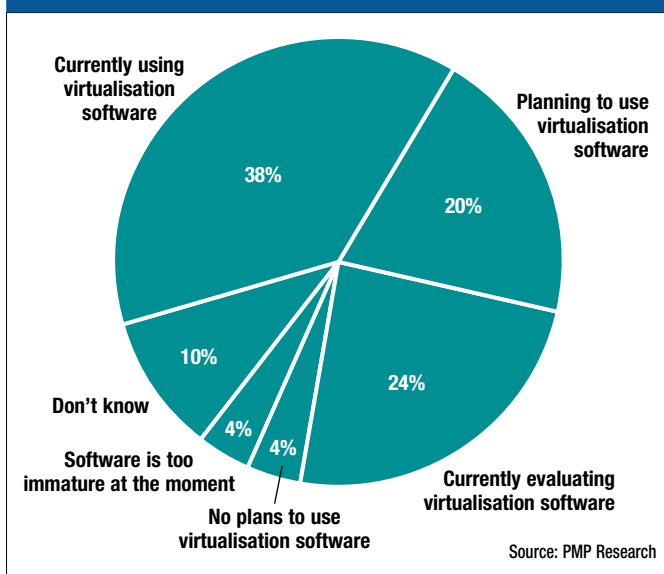
From the research, 34% of companies already have a fully centralised IT environment, with a further 48% currently moving in this direction and 8% planning to do so (see Figure 2).

This trend towards centralisation goes hand-in-hand with reducing processing power on the desktop and consolidating application delivery from the data centre. From the sample, 12% have already cut desktop processing power, with a further 14% planning to do so and 26% evaluating the option.

However, 42% of companies have no current plans to cut desktop processing power.

One of the drivers for reducing power on the desktop and centralising application delivery is 'thin-client' technology. This has been steadily gaining in popularity as applications can be managed more cost-effectively and securely from a central location.

FIGURE 3: Use of server virtualisation



Only a few companies, 4%, have so far implemented it across the whole organisation but half are using it in some parts of the business. Another 8% intend to deploy thin-client, and a further 8% will be evaluating its use. Just over a quarter of companies, 26%, have no plans to implement it.

Demonstrating the need to trim costs and simplify the IT infrastructure, 82% of companies are in the process of consolidating the number of servers they use. This is an ongoing task as no-one feels they have completed this operation.

Only 18% of organisations are not currently engaged in some form of server rationalisation.

Virtualisation technology for commodity systems is providing much of the impetus for this trend, as companies can now easily consolidate multiple

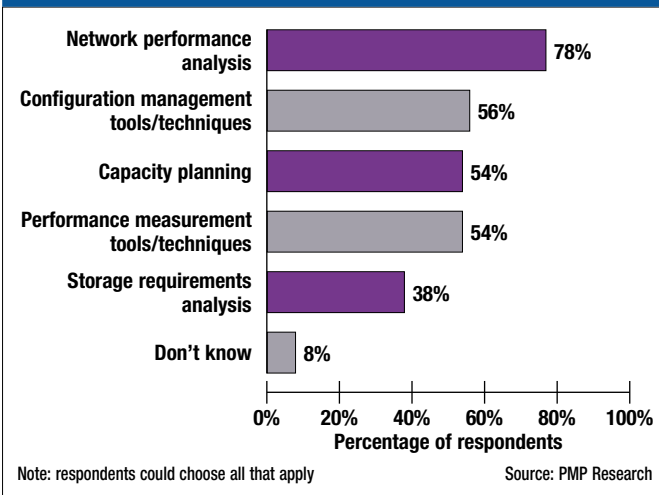
applications on a single large server, rather than have them spread across several smaller ones.

As Figure 3 shows, its adoption is growing dramatically and shows no sign of slackening. Of the companies interviewed, 38% are currently using this technology, 20% are intending to do so and a further 24% are evaluating its use. Only 4% have no plans to move in this direction.

It is not only with servers that virtualisation is making an impact – there is a growing move towards using storage virtualisation to manage disk capacity more effectively. This has been adopted by 22% of companies, while 16% plan to adopt it and another 32% are evaluating the technology. Only 14% have no plans to use it.

Virtualisation appears to be a dream come true as it provides the answer to many infrastructure design requirements. We asked the respondents to rate the benefits of this technology using a scale of 1 to 5, where 1 equals 'little benefit' and 5 'great benefit'.

FIGURE 4: Use of infrastructure monitoring software



The biggest plus is that it facilitates server consolidation (4.4), allowing companies to improve their hardware utilisation and cut costs. It is also seen as providing more flexibility in the use of IT resources (4.2) and allowing the IT department to react quicker to changing business requirements (4.1).

In addition, business continuity and disaster recovery is simplified as systems can be replicated and brought back online much faster (4.1).

Effectively managing the IT infrastructure is a complex process and there is now a whole range of software tools available to aid in this task.

As both wide and local area networks are ubiquitous in most organisations, being able to manage their

performance and quickly rectify bottlenecks or failures is critical – and 78% of companies use network management and analysis tools to achieve this (see Figure 4).

Configuration management tools and performance management tools are also essential to ensure the efficient running of systems and provide consistent response times to the end users. These are being used by 56% and 54% of companies respectively.

Capacity planning tools are also being utilised by 54% of organisations to predict future requirements and identify potential problem areas.

Given that data storage requirements are escalating in most organisations, it is a little surprising that only 38% of companies are deploying analysis tools to manage and control their storage needs.

External attacks

Protecting systems from external attack and ensuring that data cannot be accessed by unauthorised individuals is high on most organisations' priority list. With the range of security threats increasing, it is becoming more time-consuming and costly and requires more highly trained staff to handle this complex task.

The majority of respondents, 56%, still manage all their security inhouse but some are calling on external companies to assist them. Only 4% have outsourced all their security management to a third party while a further 36% use one for some aspects.

SURVEY STATISTICS

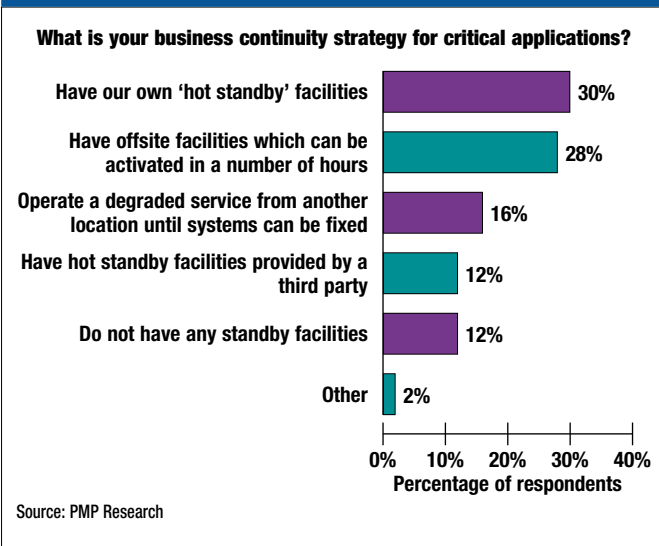
We asked a wide range of companies and public sector organisations for their opinions on issues relating to the development of their IT infrastructure.

A substantial proportion of our respondents (26%) work in the public sector, followed by IT & telecoms (16%), banking & finance (10%), manufacturing (10%), business services (10%), publishing (8%) and distribution & logistics (6%).

They represent a spread of different-sized organisations, with 18% having in excess of a £5 billion turnover, 14% in the £1 billion to £5 billion bracket, and 4% in the £500 million to £1 billion range.

In the mid-range, 26% have a turnover of between £100 million and £500 million and 4% £50 million to £100 million. At the smaller end, 18% have a turnover between £10 million and £50 million and 16% £5 million to £10 million.

FIGURE 5: Key business continuity strategy



Software licensing is always a fraught issue and suppliers have many and varied ways of calculating the costs to end users.

This has become even more of a bone of contention with the advent of virtualisation and new processor technology, such as dual core. Of the respondents, 14% feel that it is a 'great issue', 32% a 'significant issue' and 22% a 'moderate issue'. Only 18% see it as of little concern.

The IT Infrastructure Library (ITIL) is gaining acceptance around the world by providing a best-practice framework for IT service management. This is an area that many companies have been trying to improve and its growing popularity is demonstrated by the fact that 50% of the sample are already using ITIL.

Another 16% will use it and 24% may adopt it in the future. Only 10% have no plans to move in this direction.

Business continuity/security is high on the corporate agenda and 52% of the sample feel that recent events such as terrorist attacks have made their organisation more aware of the issue. Business continuity is often seen as purely an overhead but, as our Expert Opinion article on page 5 explores, it can be used to provide benefits to the business.

To ensure the continued running of their most critical applications, the primary business continuity strategy for most companies is to either have their own 'hot standby' facilities (30%) or use offsite facilities that can be activated in a few hours (28%), as Figure 5 shows.

Other options used are operating a degraded service from another location until the systems can be fixed (16%); and having hot standby facilities provided by a third party (12%). Another 12% have no standby facilities for their systems.

When it comes to reviewing and testing the effectiveness of their business continuity plans, 43% of companies do this at least every 12 months and 25% at least every six months.

It is important that organisations carry out regular risk assessment, to evaluate which applications or areas of the business are most vulnerable to breaches in IT security. Most companies (58%) do not undertake this task more than once a year, while 24% carry it out on a more regular basis and 10% fail to do any risk assessment.

Physical limits

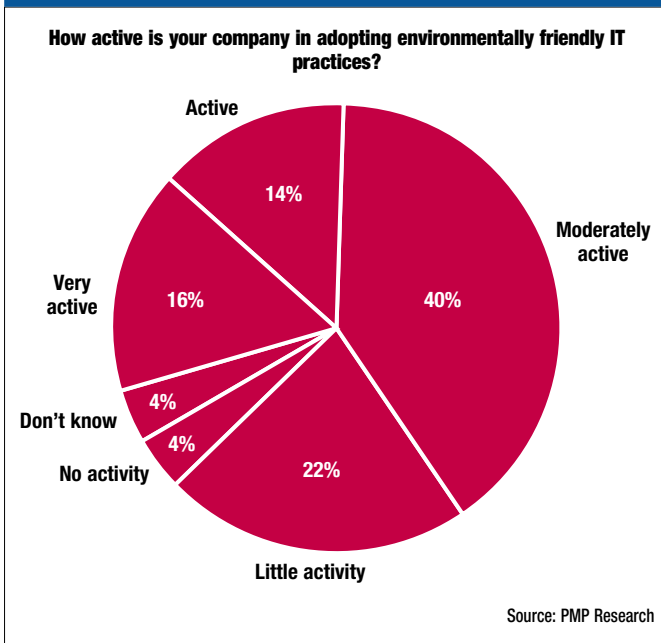
While organisations are busily re-engineering their IT infrastructure with new hardware and software, the fly in the ointment turns out to be the limitations of their physical environment.

The key constraints are lack of available space for new infrastructure in the data centre, cited by 44% of respondents, and a shortage of power capacity, mentioned by 38%.

The need to reduce heating and cooling requirements is also an issue for 40% of respondents, while 22% mention the high cost of real estate as being a limiting factor.

This is happening at a time when there is growing awareness of the need to adopt more environmentally friendly or 'green' IT practices and is causing many organisations to reappraise how they manage their IT infrastructure.

FIGURE 6: Environmentally aware activity



Only 16% of respondents think their organisation is 'very active' in pursuing environmentally friendly IT policies (see Figure 6), with 14% saying they are 'active'. The largest proportion of companies (40%) are 'moderately active' but a significant number (26%) are undertaking little or no activity in this area.

The way the IT function is financed varies considerably from one company to another, and there is a trend to change IT from being a simple cost centre into a more competitive supplier of IT services.

The biggest proportion of companies (36%) still see IT costs as a central business overhead, while 22% have a fixed allocation of costs by business unit and 18% charge the cost back to the business unit by application or project.

Some organisations (14%) have adopted a utility-based billing system where IT is paid for according to usage.

In summary, IT plays a crucial role in supporting the business processes of every company and it's therefore essential to ensure that the basic infrastructure is right and can always keep the business running. The difficulty now is for companies to transform their IT operations in order to deliver efficient services in an eco-friendly way.

● *Cliff Mills is research manager for Conspectus publisher PMP. If you are interested in this study, please contact Cliff on 0870 908 8767. Email cliffm@pmpresearch.co.uk.*

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