

Taming the beast: containing spiralling IT infrastructure costs

Dr. Gina Sum

Most Chief Information Officers (CIOs) find it difficult to get a handle on the escalating cost of their information technology (IT) infrastructure. Many use outsourcing to leverage scale and expertise from external providers, but find costs still keep rising – and that their own jobs are in jeopardy. But, it doesn't have to be like this. Prudent planning can reduce technology infrastructure costs while ensuring IT remains agile.



After a dramatic decline following the burst of the dotcom bubble in 2000, spending on information technology (IT) is picking up again. Whilst this is good news for vendors – does it mean the same for business? According to an IT research company Gartner, a worldwide survey of 1300 CIOs with a combined spend of £59bn found that IT budgets will grow by around 2.5% during 2005 after several years of budget freezes and squeezes (see Figure 1). This represents a return to the more typical long-term trend for budgets prior to the exceptionally high annual increases seen just before the dotcom crash.

Much of this growth is being driven by projects to replace ageing IT infrastructure. Many CIOs postponed upgrades when times were tight, but are now looking to refresh desktops and servers to improve security and reliability. Our work with clients suggests CIOs are spending their budgets this year on:

- technology and infrastructure rationalisation and consolidation, to help implement regulatory and corporate governance directives (see [Conforming to Corporate Governance in a cloudy technology world](#) by Sum);
- tools and accompanying process frameworks to enhance security measures and guard against virus attacks and hacking;

- technologies to support mobile working to improve productivity; and
- cost reduction initiatives, such as development of shared services, outsourcing and offshoring.

However, any CIO in the job for more than five years knows that getting control of infrastructure and, more importantly, keeping tight control of it over the long term is no easy task. While companies are busy concentrating on remaining competitive by adding new sales channels, new products, new markets and new customers, or transforming business processes to deliver operational efficiencies and enhanced service, or building new capabilities through service aggregation, their underlying infrastructure is constantly growing in size and complexity (see [Why integrate, when you can aggregate](#) by Pal). At the same time, CIOs are regularly being pushed by vendors to upgrade to the latest versions of software and operating systems.

In most large companies, IT infrastructure – the data centre, network connectivity, operating systems, storage devices, transaction processing facilities, databases, middleware, and IT performance management tools (see Figure 2) – has become the single largest component of enterprise IT cost, often eating up more than 40% of the budget. In most companies, IT infrastructure is built in an ad hoc, piecemeal

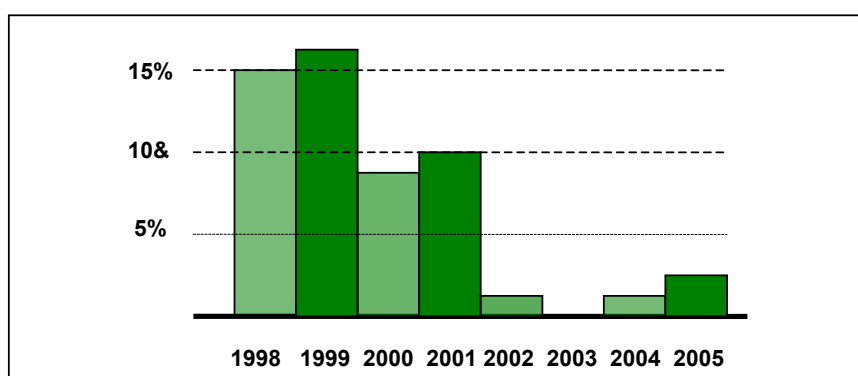


Figure 1: IT Expenditure: expected year-on-year change (%) (Source: Sirius & Company Analysis)

manner, with heavy investments made on a project or operational basis, and little forethought given to how it must support the company’s evolving strategy. A “services” based approach to IT infrastructure along with thoughtful, deliberate decision-making made jointly by business and IT leaders are prerequisite to deliver the strategic agility companies need in a rapidly changing and unpredictable business world. Executives make few moves more critical than their decisions about which technology infrastructure investments will promote future strategic agility. When companies describe their IT infrastructure capabilities as services instead of equipment (say, the provision of servers, desktops and the rest, they do a better job of putting a value on what they are buying. And understanding whether an initiative is supply side, internally focused or demand side can help managers decide whether to make the infrastructure investment on a business unit level or company-wide.

Popular approaches fail to contain growing costs

CIOs have not, of course, neglected the issue of how to reduce IT infrastructure costs whilst maintaining or improving the quality of services delivered to the business. We see them typically progressing through the following stages:

- 1. They identify short-term tactical improvements in efficiency which allow them to cut the head count in the IT department. These changes can be implemented

within 3-6 months, and require only limited investments apart from redundancy payments to employees.

- 2. At the same time, they set an IT infrastructure strategy based around consolidating and standardising technologies, and implementing supporting organisations that marshal operational processes, suppliers, and a governance framework in a coherent fashion. Deployment of this scalable and solid IT infrastructure strategy often takes 12 to 18 months and requires substantial investment in new technologies and organisational change. In order to maintain cost savings, companies look to establish an ongoing capability for managing volumes and service levels.
- 3. Often they find that short-term tactical improvements have achieved only limited efficiency savings and don’t address the main causes of escalating IT infrastructure costs, while damaging the capability of the IT team to respond to the needs of the business, because skilled employees have been shed. In response, they use outsourcing in an attempt to leverage scale and expertise from external specialists, based on the thinking of some industry commentators that “outsourcing reduces cost” (see *Offshoring: Saviour or Value Destroyer* by Pal).

Yet overall IT budgets continue to grow uncontrollably. The reason is that these approaches reduce the cost of already installed infrastructure but do little to address the constant flow of new IT solutions being developed in response to business demands. Within a few years, these new IT solutions in turn become a legacy problem and prompt yet another consolidation programme.

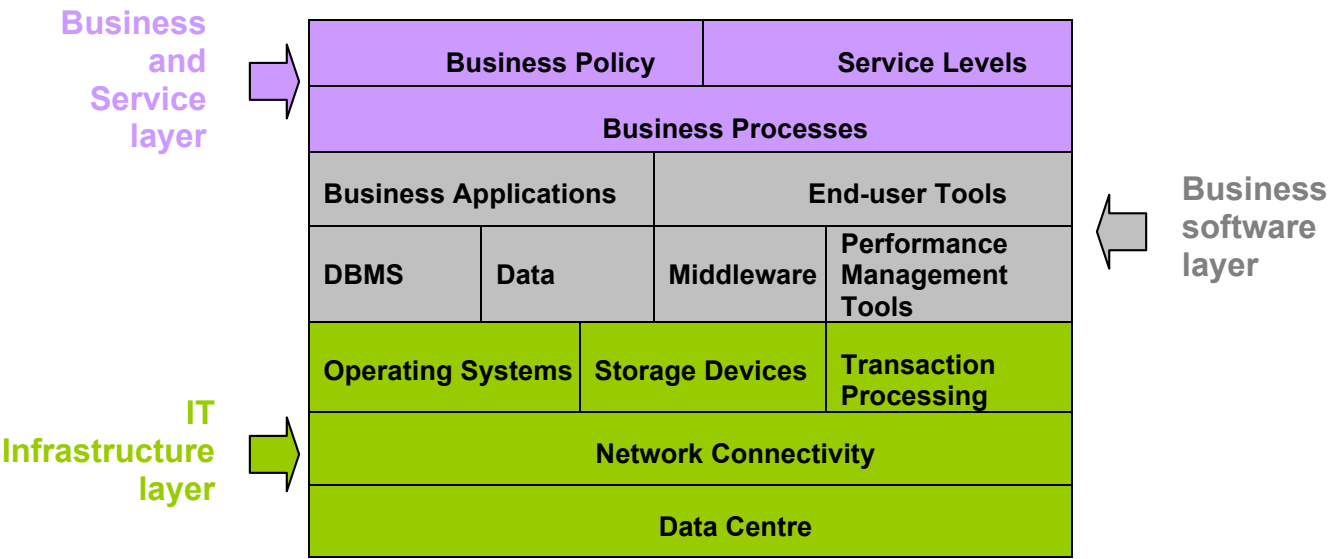


Figure 2: The IT Infrastructure jigsaws

Our work with clients shows that a typical consolidation programme can achieve one-off cost savings of more than 30% of existing running costs. However, these savings – both before and after outsourcing – depend on how much control companies have exerted over their IT over the long term. We believe that companies can achieve long-term as well as short-term savings of between 25% and 30% only through a concerted consolidation programme coupled with ongoing tight control over assets.

Coordinated sourcing, demand and delivery boost efficiency

CIOs understand that it is the proprietary processes and business policies embedded in the Business Software and Business and Service layers that provide differentiation and competitive advantage. However, the main components of the IT infrastructure layer are available and affordable to all, and have become commodities that don't provide any significant advantage. IT infrastructure is a cost of doing business for every organisation but provides distinction to none. Greater expenditure on IT infrastructure rarely translates into superior financial performance.

While proprietary elements in the Business Software layer provide value, the IT infrastructure layer delivers more value when it is shared by many users instead of being sliced into isolated pieces dedicated to particular applications or user groups. To achieve real control over IT spend, CEOs, CFOs, and CIOs have to all commit to a strategic and coordinated approach to IT sourcing, business demand, and delivery.

This starts with a thorough understanding of the nature of the demand for IT services. IT management and business

units must work together to map the demand for individual solutions and plan capacity accordingly. Equipped with a solid demand forecast, the CIO can then go about changing the way the IT department operates. For instance, instead of delivering “servers”, it can deliver “services” and charge the business on a per-use basis.

Once the IT department has moved to a service focus, the CIO needs to compare the internal and external rates for the delivery of individual services. For example, if the company understands the true cost of delivering sales automation functionality internally, it can easily compare it with the cost of external utility service providers such as salesforce.com, and choose the cheapest sourcing option in each case.

With this approach, we estimate, companies will achieve real reductions in IT spend of between 20% and 30%.

Figure 3 summarises the strategic and tactical approaches, and what companies should expect to save by adopting each approach.

New approach for IT Infrastructure Management

We've developed an approach that help CIOs calculate how effective their service is compared with offerings from external suppliers (see Figure 4). It Includes:

- knowing what services the IT department provides to its internal customers;
- identifying the components involved in delivering the service;
- understanding the skills and knowledge those services depend upon;

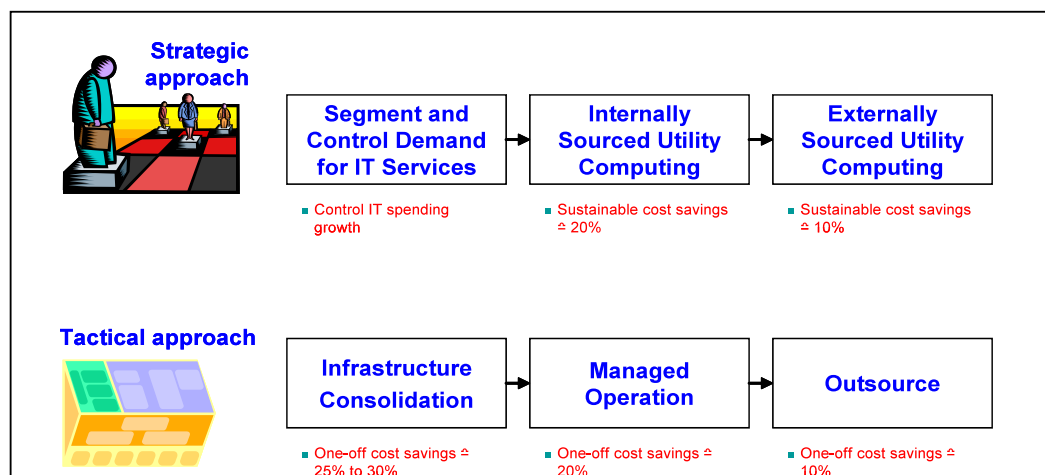


Figure 3: Cost savings depend on management approach

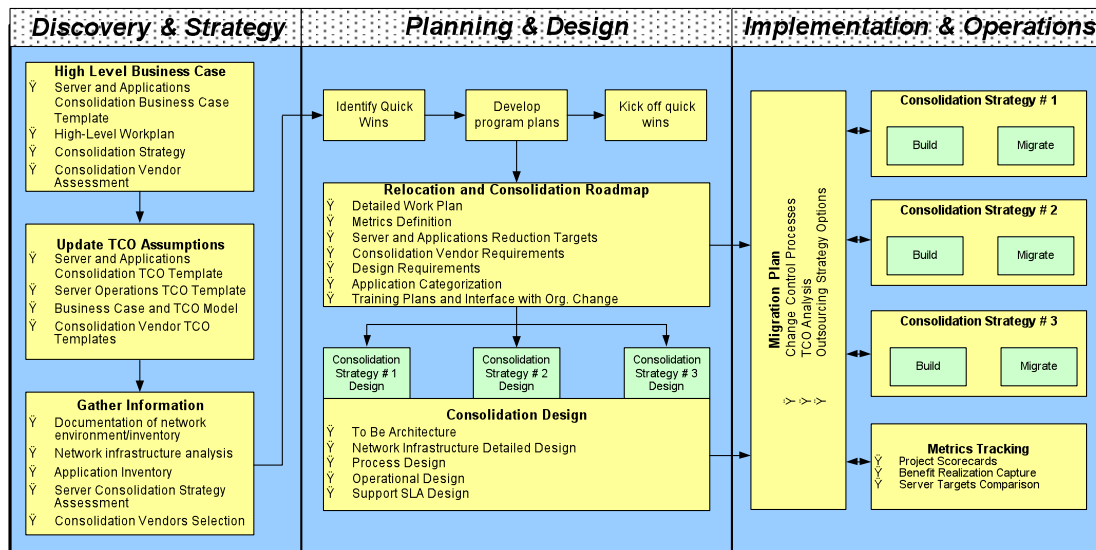


Figure 4: Disciplined approach for IT Infrastructure Management

- recording details of every fault and issue; and
- using knowledge gained from previous issues to solve future problems.

This approach allows companies to improve efficiency, simplify IT processes, and define an IT services catalogue, so that they can compare current services with those of external suppliers to determine whether these services should continue to be run in-house or outsourced.

Furthermore, CIOs should focus on developing a framework for managing their IT infrastructure in the most efficient way, to allow them to reduce cost and sustain it over a longer period of time (see Figure 5). A methodical approach provides companies with a customisable framework of best practices to achieve quality service and overcome the difficulties associated with managing growth in spending on IT infrastructures and systems.

Where next?

Most IT organisations have decided to centralise decision rights related to infrastructure services in order to capture economies of scale. But while the decision rights are centralised, the IT resources don't have to be. For example, a company may have a single decision-making point for investing and building out its call centre, but the call centre organisation may still consist of decentralised personnel working from their homes and having decision rights over maintaining their systems. We found that smart companies are making regular, systematic, modular, and targeted IT infrastructure investments on the basis of overall strategic direction. If other companies can learn to recognise which IT infrastructure capabilities are needed for which kinds of initiatives, they can have some assurance that the investments they make today will serve the strategies of tomorrow.

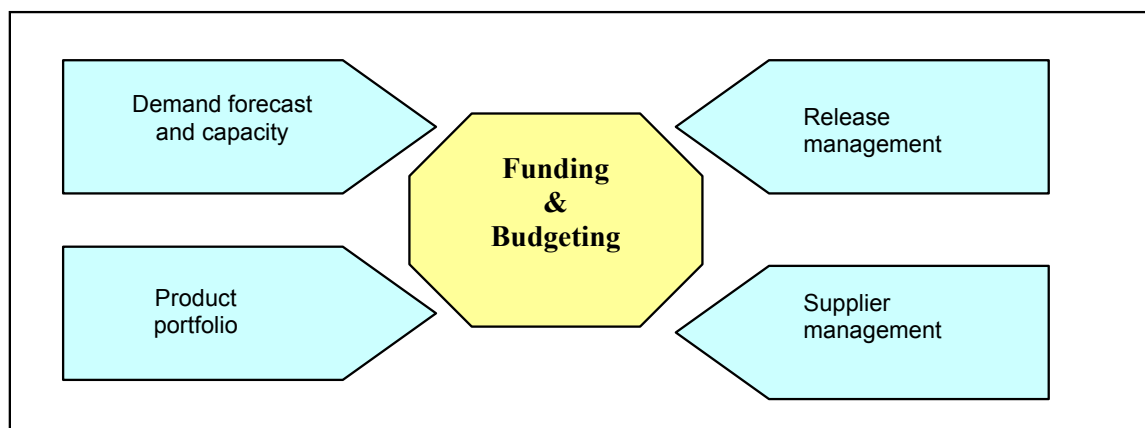


Figure 5: A Framework for IT Infrastructure Management

The emergence of cloud computing is also changing the way companies go about planning their IT infrastructures - it's as inevitable and significant as the shift from steam power to electricity on the factory floor. When it comes to cost, reliability, and security, the cloud promises to equal or better on-premise IT infrastructures. Moreover, cloud based IT infrastructure offers sizable benefits, such as improved productivity, easier collaboration, the ability to mine data for insights and higher capacity without major capital investment.

Much IT spending today is still driven by technology suppliers' strategies. Vendors and systems integrators have become very good at packaging out new features and capabilities in ways that force businesses into buying new desktops and servers, new versions of operating systems,

and new networking equipment much more frequently than they really need to.

Strong cost management of IT infrastructure requires greater rigour in evaluating returns from IT infrastructure investments, more creativity to exploit and explore simpler and cheaper alternatives, and a more flexible and intelligent approach to outsourcing and other partnerships. The time has come for companies to get smart over their purchasing: negotiating contracts that ensure long-term usefulness in their IT infrastructure investments, and imposing hard limits on upgrade and migration costs. If the suppliers refuse to play ball, businesses should consider cheaper alternatives, such as open source operating systems and applications.

About the author

Dr. Gina Sum is a member of the Leadership Team of Sirius & Company.