

# BUYING THE ELEPHANT



**A Portfolio Approach to IT Procurement**

# Buying the Elephant: A Portfolio Approach to IT Procurement

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## A Portfolio Approach to IT Procurement

### Introduction

‘To buy or not to buy’ is no longer the question when it comes to investing in information technology. Since roughly half of today’s IT budget is earmarked for vendors of hardware, software, telecommunications and services, CIOs and other IT decision-makers might now well ask: How can I leverage external spending to meet my most pressing objectives, including:

- Cutting costs
- Improving service
- Reducing complexity
- Lowering risk?

This White Paper presents the case for IT procurement as a forceful yet neglected IT strategy tool and suggests four tactics for effectively deploying it.

1. [View IT capability as a portfolio to be optimized](#)
2. [Shift the IT portfolio towards commoditized products and services](#)
3. [Shrink the number of vendors to grow buying power](#)
4. [Drive value-creating procurements and leave the rest to others](#)

To introduce this topic, it may be useful to bring current some outdated notions about what might be called the IT supply chain. Today’s IT organization now spends more on external resources (hardware, software and services) than on internal ones (payroll) (see [Figure 1](#)). Not only has the number of technology vendors servicing the IT organization more than doubled in the last five years (see [Figure 2](#)), the number of people who buy from them, both internal to IT and within the customer organization, has mushroomed (see [Figure 3](#)). Put in this perspective, IT procurement has become a force to be reckoned with on absolute terms alone. Relative to the mission of the IT organization, however, IT procurement now packs the most potent punch of any force currently shaping the IT portfolio.

### 1. View IT capability as a portfolio to be optimized

**The IT portfolio can be optimized by a centrally designed procurement function.**

Every IT project launched relies upon products and services that must be sourced, contracted and delivered from external suppliers. When the IT procurement process occurs outside the bounds of a disciplined IT strategy, the result is an installed IT portfolio that bears little resemblance to its plan. To achieve the right architecture, infrastructure and applications, IT procurement must be employed as both the distribution channel for strategy and the “eye of the needle” that keeps extraneous products and services from entering the portfolio.

To bring IT procurement to the center stage requires the leadership of the individual occupying the most relevant vantage point—the CIO. IT procurement is more often than not

embedded within many more visible processes, such as business-change programs, individual projects and department budgets. Larger procurement transactions such as data-center or business-process outsourcing initiatives, while they engage senior executives, happen too infrequently to demand strategic scrutiny. While some senior management attention is attracted to smaller deals – the 50 or 200 systems-integration projects costing \$50,000 to \$100,000 – it is usually to focus on the necessity of the individual purchase rather than its broader portfolio impact. Not until IT procurement can be aggregated at the CIO level and the IT portfolio seen as a holistic asset to be optimized, will lofty ideals such as enterprise architecture and vendor leverage amount to anything more than wishful thinking.

IT portfolio management, like financial portfolio management, works by establishing a sound strategy for making trade-offs within zero-sum constraints. When the right technologies are purchased, the wrong technologies are not, ensuring portfolio integrity and financial returns to the bargain. When the IT portfolio can be viewed as a whole, entire delegations of superfluous vendors can be asked to leave the building. Those that remain can be offered a better place at the table in exchange for cost and service concessions. By harnessing procurement as a strategic tool, CIOs and other decision makers gain new influence over the ultimate gateway to effective architecture and delivery capability.

Realistically, a fully comprehensive approach to IT procurement can only be achieved in stages. Furthermore, not all IT organizations need to centralize the execution of procurement to benefit from a centralized governance strategy. The following framework illustrates how an organization can evolve from treating IT procurement as just another function, to viewing the entire technology and related portfolios as a set of business assets and endeavors unavoidably linked to the goals and value operations of the enterprise. There appear to be at least five levels of maturity as IT procurement becomes a platform for executing IT strategy, each distinguished by a gradual increase in the economic and architectural synergy of the IT portfolio:

#### ► Stage One: Buying

When procurement decisions are distributed throughout the enterprise, buying leverage dwindles. Employees taking advantage of a ‘good deal’ spotted on an Internet site might save their department a couple of bucks while compromising architectural consistency and sabotaging support arrangements. When asked how his IT portfolio got so large and unwieldy, one IT executive recently quipped, “It was easy. . . by making hundreds of awfully good decisions.”

At the “buying stage” of maturity, individuals make procurement decisions however and whenever those decisions support the projects and deadlines at hand. Favorite vendors figure prominently in such circumstances because they offer the path of least resistance to project managers unfamiliar with changing market conditions. While selecting the best deal in the shortest timeframe possible may make sense for a given project, decisions made in the vacuum of project expediency run the risk of under-leveraging enterprise-wide buying power or undermining the greater strategy.

#### ► Stage Two: Procurement

During this stage of maturity buying begins to occur under the auspices of a standard, repeatable process that is usually, though not always, centrally managed. A cycle has been established for planning, selecting, negotiating, and contracting with vendors though best practices within each of these activities have not yet been implemented. This stage uses product and service assessment vehicles to select appropriate technologies but often fails to fully recognize the longer-term architectural and cost implications—such as total cost of ownership (TCO)—of selecting particular technologies. Asset management programs may be

adopted to track hardware and software assets but do little to provide leverage. The emphasis during this stage of growth is in getting procurement under a single roof. Consequently, procurement decisions usually do not consider the full extent of the enterprise's dealings with each vendor. Furthermore, IT procurement may continue to be executed by individual business units in the absence of enterprise-wide procurement consolidation, particularly after being shown the wonders of e-procurement solutions<sup>1</sup>.

### ► Stage Three: Vendor Management

IT procurement now starts to look like a portfolio-driven process in that the overall relationship with a single vendor is given proper scrutiny. For the first time, the customer becomes aware of what the vendor has known all along: the totality of the vendor spend and the essence of the multitude of contracts the vendor has managed to get signed. Vendor management disciplines such as service levels, enterprise agreements and performance measurement make their way into IT. A contract management system appears. Deals are struck based not so much on vendor price but cost, exposed in an effort to determine the fairest way to provide a reasonable profit to the vendor in some areas in exchange for savings to the buyer in others. During this maturity phase, it would not be unreasonable to challenge a vendor to take costs out of the overall relationship in exchange for increased volumes or other buyer concessions.

At this level of maturity, the CIO assesses each vendor to understand the alignment of its products and services with IT strategy, and focuses on developing strategic vendor relationships. If, for instance, 20% of an enterprise's external IT goes to a vendor that only provides commodity products, then time spent with the vendor rarely goes beyond initial negotiations on quantity and price. On the other hand, when a vendor provides components critical to IT strategy, the CIO forms a relationship with the vendor more akin to a partnership than a transactional relationship. Partnerships exist whenever both parties are willing to undergo a certain level of risk in exchange for a greater reward. Some organizations invest savings captured through vendor partnership programs to improve the overall IT procurement function.

### ► Stage Four: Portfolio Management

In its extended form portfolio management embraces programme and project endeavors, vendor and IT portfolios and human and information resources. (Note that many popular references to portfolio management<sup>2</sup> are focused on project-portfolio management – see, for example, [Merril Lynch](#) and [Schlumberger](#).) Portfolio management extends scrutiny to planned investments and business needs, allowing balanced judgments to be made about where to spend.

When the entire portfolio is in view, the CIO can effectively rationalize, commoditize, and simplify the IT portfolio, and encourage well-balanced investments, such as ensuring money

<sup>1</sup> e-procurement, while well-intended and highly promising, managed in its initial implementations to automate procurement processes while broader inter-portfolio issues remained un-integrated

<sup>2</sup> Harry M Markowitz invented portfolio management in the '50s and later shared a Nobel memorial prize for it in 1990 with William F. Sharpe and Merton H. Miller. See *Portfolio Selection*, The Journal of Finance, Vol VII, No. 1, March 1952. His Modern Portfolio Theory is the most rigorous form of portfolio management, using a set of specific mathematical equations for measuring risk versus return, quantifying the decision-making process and determining value.

is not squandered on non-discretionary elements (see Meta Group's suggested categorization of IT investments).

Meta Group suggest categorizing IT investments according to their levels of necessity and risk:

- *Core*: keep enterprise running
- *Non-discretionary*: support organic growth
- *Discretionary*: support basic business change, such as a new computer for a new employee
- *Investment*: business growth initiatives, such as a system to enable cross-selling
- *Venture*: major innovations, such as developing a new product, acquiring a new line of business

Effective portfolio management not only guides investment decisions but also exposes IT procurement opportunities that rationalize, commoditize, and simplify technology, application and vendor portfolios. It encourages the removal of obsolete and obsolescent components of portfolios that typically encumber enterprises' need for agility.

A useful metaphor for visualizing the advantages of treating the entirety of IT capability as a single portfolio is as a piece of string connecting each vendor product or service to every project, application, infrastructure, user and budget it affects. Imagine the benefit of always knowing the total impact on the portfolio of tugging a single vendor string. Such relationships, though complex, exist throughout the IT portfolio whether we document them or not. This stage of procurement maturity deliberately maps the portfolio to all aspects of the projects, applications, and infrastructures it supports.

#### ► Stage Five: IT-Business Supply Chain

The future of IT procurement lies in constantly being aligned to changing business-process needs. This stage places the CIO ahead of, if not leading, the effort to better enable business change. Business technology management is an emerging best practice (see, for example, <http://www.enamics.com/>), which links business units, process, applications and technology, to support scenario planning as well as to manage enterprise-wide capabilities and intentions. Mature IT-procurement management prioritizes vendors on the basis of their contribution to improving business processes through leveraging their technology capabilities.

Moving IT procurement practices forward is not trivial. Project goals and expediencies constantly challenge broader-based initiatives. Frequently, there is resistance to the matrix-management complexities introduced by holistic procurement. Rationalizing vendor selection in terms of the entire vendor portfolio may often be seen as needlessly bureaucratic. Some decision-makers will be reluctant to relinquish what they perceive to be "control" over their Favorite vendors. IT organizations need to overcome these barriers by educating IT and user management, as well as buyers, on the need for broader considerations and approaches, and on portfolio management and post-purchase issues in particular. When decision-makers realize that it is not they but the vendor that is in control, they will be more likely to follow standard, repeatable processes to bring vendors (and themselves) in line with the vision of a consolidated and optimized IT portfolio.

## 2. Shift the IT portfolio towards commoditized products and services

**The IT portfolio can be simplified and made more flexible through commoditization.**

Many IT products and services can be usefully viewed as commodities. Adoption of standards, both de facto and de jure, and the Open movements have contributed significantly to the emergence of a true marketplace for certain IT portfolio components. Advances in supply-market mechanisms, opportunistic ‘spot’ sourcing, reverse auctions, and process automation also encourage this perception. The rapid development of xSP offerings is expanding the concept to include IT architectures and services.

Commoditization of IT is to be welcomed by buyers – a buyer’s market offers opportunities for lower costs and reduced sourcing risks. The very idea should drive the design of IT solutions towards identifying those needs that can be met by commodity products or services while taking care to separate them from those that require unique ‘engineering’ of solutions. Buyers must beware, however, that IT products and services rarely achieve complete commodity status. Because ultimately all technology uses and users will never completely overlap, there will always remain at least a modicum of variability in every IT portfolio.

### *Opportunities as well as misconceptions surround IT commoditization*

True commoditization appears when a full substitutability of a product or service exists from more than one source of supply. Being able to easily substitute products or services increases buying power through market competition, while reducing dependency and sole-sourcing risks. Yet there are constraints as well as misconceptions to which IT organizations need to be attentive— the commodity notion may well have been over hyped, allowing multiple sourcing of desktops, for example, without due regard to potentially conflicted support implications. Even for larger buyers of the same model of laptop from the same source over time does not guarantee consistent software imaging – IBM will commit to holding laptop components constant for one year at the most for IT organizations with the highest buying power.

Commoditization is more readily achieved when the total lifetime costs are dominated by those incurred at purchase. Many IT procurements represent just the reverse – the greater proportion of the lifetime cost occurs post purchase. Spreading procurements of such apparently commoditized products across not-a-few vendors can lead to significant unnecessary downstream support cost.

The dominantly downstream distribution of IT product and service costs requires the availability of a market to handle downstream product servicing for true commoditization to occur. Even then, the opportunity to take advantage of this downstream market, if it exists, is often constrained by the interdependency within the architecture, particularly the collaborative technologies upon which they largely depend. The more products and services become self-serviced and self-supporting the more they become true commodities.

The extent to which IT organizations understand and manage TCO may determine success in pursuing and exploiting commoditization. Post-purchase consequences and costs may vary significantly from one product variant to another. The personal computer, although largely personal, is rarely standalone – it is most often networked, and has TCO and portfolio impacts. W. Edwards Deming was tireless in pushing ‘profound’ knowledge – understanding variability in order to manage well, particularly as it applied to raw materials. Profound knowledge required majoring on no more than one or two suppliers, and on investing significant effort to intimately understand the quality of their products. Likewise, IT needs to understand and properly manage the quality, reliability and TCO of procured products and services. It should take advantage of vendors’ maintenance knowledge and leverage the

qualities of their products. If purchases are spread across many sources these factors are unlikely to be profoundly understood.

### **Commoditization is an implementation approach for architectures and applications**

Commoditization can also be viewed as a concept that drives the approach IT organizations take to the architectures, applications and services they implement. Scrutinizing requirements so as to detach and ring-fence the unique from the generic ones, and implementing solutions accordingly, is essential to internally-driven commoditization. The IT organization maximizes the commodity potential by not allowing unique requirements to muddy the generic ones that may well be satisfied by commodity solutions.

The increasing adoption of design ‘patterns’, both at architectural and program levels, is another form of commoditization – in this case of skills, as well as of solutions. Understanding and adopting guiding principles and standards should be seen as essential to the commoditization movement.

For most enterprises the legacy of past IT investments are significant portfolios of unique technology solutions. Even more-recent package procurements have not reversed the general pattern, with their typically significant customized components. Dealing with legacy issues has been a subject of much research and many principles still remain relevant today. [Fidelity’s](#) “XML-ization” of its applications is a more recent example of opening up architectures in a commoditized manner, thus paving the way to easier exploitation of others’, and future, product offerings.

The notion of ‘internal’ commodity is furthered by the adoption of standards (whether de facto, de jure, or internally defined), and supportive of consolidated procurement across enterprises. Standardized architectures will not be as commercially robust as truly commoditized ones, yet they are certainly headed in the right direction.

De facto – market driven – standards will not necessarily deliver on all the characteristics of true commodity, and enterprises become hostage to those who deliver them (for example, the Microsoft’s May 2001 launch of its Licensing 6.0 program raised many hackles for Office suite users). Me-too adoption of products, such as SAP, may lead to similar results. Open-sourced software starts to look more attractive in such circumstances, and quite rightly so.

### ***IT service commodities – the utilities of the future***

There is a high likelihood that service-based procurement will account for more than 50% of IT external expenditure within five to seven years. Ultimately IT services will become the utilities of the future – much like the replacement by electricity utilities of ‘departments of electrification’, which existed in many early 20<sup>th</sup> Century enterprises.

IT organizations have made progress in their ability to buy external services – certainly the shift from total to selective outsourcing has resulted in better goal attainment<sup>3</sup>. Yet most enterprises have still to strengthen, standardize, and master their service-procurement processes. Mature procurement focuses on: the quality, not quantity of Service Level Agreements (SLAs); expectation and value management; understanding and sharing

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<sup>3</sup> See *An Empirical Investigation Of Information Technology Sourcing Practices: Lessons From Experience*, Mary C. Lacity & Leslie P. Willcocks, MISQ Quarterly, Winter 1998

knowledge on the drivers of cost, especially when they originate with the buyers; on exploring – during the negotiating process – how the service, and improvements to it, will be delivered.

Mastering service procurement also means being *ready* to procure; for example, having good understanding of internal performance, the business values to be delivered, the costs and cost drivers, and in-place and vigilant SLAs. It means understanding the proliferating options (see, for example, the options available at <http://searchebusiness.techtarget.com/>, and [Merril Lynch](#)), their strengths, weakness, and implications. Being *ready* means IT services can be ‘carved at their natural joints’ to take advantage of vendor offerings. For example, outsourcing the help desk separately from other levels of support could result in disparate services. It also means being much more commodity conscious, by creating relatively easy-to-substitute arrangements for outsourcing. This implies selective rather than total outsourcing deals. As service commoditization increases, IT organizations need to see themselves more in the role of brokers than providers. Ultimately, service commoditization may depend on the wide adoption of process automation initiatives, such as the Business Process Management Initiative –see <http://www.bpmi.org>–and emerging Business Process Management Systems.

### 3. Shrink the number of vendors to grow buying power

**When vendor numbers decrease, buying power will increase.**

The ability to aggregate purchases is one of the cornerstones of first-class procurement of any type. Aggregation entails reducing the number of vendors and channelling expenditure through a select list of vendors rated strategic or preferred. IT organizations that prefer to maintain multiple vendors for as few as even a single product or service must weigh the apparent benefits of multiple sourcing against the increased leverage achievable from consolidation and the reduced administrative cost of managing fewer vendors.

While most IT organizations aspire to work with a small number of vendors, attitudes and events often mitigate this intent. Finding the right vendor for the right product is a typical IT response to meeting the often unique, and shifting, needs of the customers. ‘Best of breed’ product buying encourages the trend to increase the size of the portfolio. Products as well as vendors therefore proliferate (as [Figure 4](#) illustrates).

A special case of the over-inflated IT portfolio occurs as the result of a merger or acquisition. Mergers and acquisitions often result in an enterprise gathering an increased number of vendors and a vast inventory of technology. When IT portfolios merge, complexity increases; but such concerns usually play second fiddle to the dominant business goal behind the merger or acquisition, such as synergy through rationalising processes under a unified management structure.

Too much has been lost by letting expediency and incorrect understanding about economics, overrule good procurement practice. Savings of 10% or more on external IT expenditure are well within reach of most enterprises if they are willing to rationalize their portfolios (see [GlaxoSmithKline](#) and [Ameritrade](#), for example).

The extent to which vendor buying can be consolidated will always be limited by the extent to which procured products and services are unique. The easier it is to substitute one product or service for another, the greater the opportunity for consolidation. Reducing the number of vendors requires sustained attention to driving out product and service variability (see, for example, [BellSouth](#)).

[Figure 5](#) presents a conceptual illustration of the dimensions of the product and service opportunity to consolidate. The horizontal axis represents the extent of influence the buyer

has in negotiating favourable terms of business – broadly speaking this comes down to the amount of money available to spend on the product or service, relative to the vendor's revenue. The vertical axis represents the relative ease with which a product or service from one vendor can be substituted by a product or service from another – i.e. the extent to which it is a commodity or not. The level of commoditization of products and services determines, in larger measure, the organization's ability to simplify its architecture.

Increased buying power is obtained by procuring from one or two vendors what would otherwise have been multiple procurements of the same product or service from several. Simply put, the more money spent in the same place, the lower the price becomes. Substantial cost savings can also be obtained by reducing the number of installed versions of the same product (for example, Windows licence consolidation). Collaborating with other buyers – typically through industry-based cooperatives, may also increase buying power. Value Added Resellers (VARs), and even large retailers, typically provide buying leverage above that obtainable by small to medium users of technology. Large outsourcing suppliers provide similar services, such as IBM, EDS and CSC (see, for example, CSC's Procurement Services Offering).

#### **CSC Procurement Services Offering and CSC Buy**

Globally, CSC procures about \$3 billion per year of external IT. CSC extends this buying power to clients, usually those whose revenues are \$500 million or more, through its Procurement Services Offering. Users of PSO still handle their own purchasing, but under the umbrella terms CSC has established with its vendors. The product range includes hardware, software, and maintenance, as well as office supplies, equipment and furniture.

Exploiting the opportunities for leveraging external expenditure does not come easily. Typically IT organizations have, at best, fragmented sources of information on what they have already bought and intend to buy. Asset-management systems have not been priority concerns. Contract-management systems, if present, might well have helped had IT procurement been dominantly covered by contracts, which has not been the case in many enterprises. To truly leverage procurement, IT organizations must develop and carry out a procurement strategy based on as accurate a view of the total portfolio as can be documented.

**There are four main steps** to follow in the quest for improved leverage through rationalized and consolidated vendor relationships:

- **Baseline to determine the presence of vendors' products and services in project and IT portfolios.**
  - **Analyse the baseline to determine the consolidation opportunities and set targets.**
  - **Create an IT sourcing strategy.**
  - **Focus on vendor relationships.**
1. **Creating a baseline** is not easy and payback is not immediate, yet it is the only sound basis upon which enterprises can launch their vendor leveraging and rationalisation efforts. Baselining intents must be explicit, clearly connected with intended uses, and aligned to ultimate goals.

- Start with what you know and then assume you don't know a lot. Sources of information are distributed organizationally in and outside of IT, in financial, legal and business units. Contracts, for example, are important sources of information as to existing terms of business as well as constraints or opportunities, but are typically scattered across IT, legal and finance functions if they existed at all.
- The information itself is likely to be incomplete and 'dirty' with inconsistencies and ambiguities in the naming of products, services and vendors, making information roll-up and abstraction challenging. Nevertheless a good start can be made with cataloguing contracts (see [Principal Financial Group](#)).
- Accounts payable systems should be able to provide historical information on the who and what of past purchases. These, too, will have to be "cleaned up" and may require the expertise of a vendor classification service.
- IT will have internal sources of information, such as on projects and assets. Business units may need to be inventoried for technologies they use. Since a composite view of IT and vendor portfolios is needed to draw valid conclusions, a good rule of thumb is to account for not less than 80% of the external IT expenditure.

2. **Portfolio analysis** seeks to reveal the extent to which an enterprise does business with each vendor, and each vendor's participation in the various technology portfolios. The technology portfolio needs to be categorised for this purpose, at least by architecture level – such as mainframe platform, mid-range platform, WAN services, LAN servers, and desktop. The information needs to be rolled up by technology category and by vendor to reveal the number of vendors, and the extent of product and service variation by architectural level. The nature of existing vendor relationships needs to be determined. This portfolio knowledge can then be used to effectively and profitably rationalize the type and number of vendors, and the products and services used. The result should be an initial list of vendors, their products and services and potential candidates for elimination.

A subset of one enterprise's technology portfolio is summarised in [Figure 6](#). The sample portfolio shows the numbers of system variants, along with the targets set to reduce variability and thereby increase ultimate buying leverage. Achieving these targets resulted in simplified architectures and reduced support costs. After only two years, the IT organization reported total external spending reductions of over 18% and an 11% decrease in the overall IT budget.

3. **The sourcing strategy** begins with a clarification of the general intents of portfolio strategy and then communicating them well. Options are considered and evaluated, and plans developed for each architectural platform (sourcing-component plans) and for each vendor (vendor action plans).
  - **Deliberations** may result in further elimination candidates. They may call for extended purchasing from other vendors.
  - **Sourcing-component plans** may aim to substitute internal for external services – benchmarking may be necessary to justify such actions.

- **Vendor plans** spell out the subsequent tactics for dealing with the vendor achieving the targeted savings.

The barriers to overcome in pursuing such consolidation initiatives are by no means low. Widely dispersed vendor management responsibilities, a misapplied belief in the value of diversity, ignorance of IT supply-channel economics, turf concerns including attachments to existing technologies (internal standards) and vendors, as well as the vendors' own partisan interests can interfere.

Reducing the number of vendors means having to make serious choices. The case for action must be communicated well, and managers must be educated to understand the reasons and implications for what may initially be viewed as extreme measures. Reducing the number of vendors in phases makes it easier to manage the necessary transitions and overcome barriers.

4. **Buying organizations** will need to develop and nurture formal relationships with a small set of strategic and preferred vendors:

- *strategic vendors*, where buyer and vendor organizations share opportunity and risk in a relatively open relationship, and
- *preferred vendors*, where the terms of business are better than those generally offered by the vendor, in return for the vendor being made preferred.

Good vendor relationships are more than just financial transactions. They require ongoing commitment by both buyer and vendor to create a broad win-win relationship. Negotiating with suppliers involves more than just securing good prices. It considers the entire lifecycle of purchase, delivery, and settlement. Terms can include delivery times, inventory responsibilities, shipping terms, return policies, and other value-added provisions. Performance measurement is needed to give procurement professionals an objective basis for judging vendor performance and for setting future goals.

Besides declaring a restricted procurement policy that favors only strategic and preferred vendors, the IT organization must work to gain acceptance of the programme. Even when procurement is standardized on fewer vendors, getting employees to restrict their buying is a challenge. This is especially true of low-cost items that may be required at short notice. Part of the answer is to make buying from strategic and preferred vendors the easiest way for projects and employees to get what they need. It also has to do with well-founded policies. Embedding policy in automated procurement processes, thereby making it easy to buy from selected vendors, and more difficult to buy outside of the agreed vendor portfolio, improves the chances of conformance and keeping vendor numbers low. The real key however will be to pass real savings on to the buyers who comply with a commoditization strategy.

#### 4. Drive value-creating procurements and leave the rest to others

**IT will always be better at buying some—but not all—portfolio components.**

For many enterprises IT procurement has been viewed as a technically demanding, as well as technically dominant, activity requiring IT ownership and execution. This remains so for a significant proportion of IT procurement.

Enterprises are waking up, however, to the scale of IT procurement, and the need to properly engage existing competency centres such as corporate procurement, legal and finance

functions, to exploit their incumbent skills (such as, negotiation, and agreement and vendor evaluation) reduce sourcing risk and increase value added (see, for example, [Ameritrade](#), [Corning](#), [GlaxoSmithKline](#), and [USAA](#)). These awakenings have generally led to corporate ownership of overall IT procurement processes with the active involvement of IT, as well as of user management. Typically IT procurement managers have retained solid-line links with corporate procurement while being collocated with IT functions.

The engagement of corporate procurement in IT has also brought opportunities to rectify some other past failings: the fragmentation of IT procurement, particularly in large corporations, with the consequent loss of overall buying power, as well as variable procurement practice. These multi-disciplinary developments are sensible, irrespective of who owns or drives the processes.

No matter how it is organised, IT procurement processes needs to be singled out for senior management oversight and governance (see, for example, [Ameritrade](#)). Increasing commoditization at one end of the IT procurement scale, and the complex buy at the other, also necessitates differentiation in procurement processes: what we buy determines how we buy, and influencing involvement in, and ownership of, the processes.

Distinct IT procurement processes – there are four – need to be honed to match the characteristics of the products or services being acquired, and automated to aid decision making, improve control, lower administrative cost and reduce process duration. These four IT procurement ‘channels’ must be explicitly recognized and placed where they can be properly resourced and managed.

#### ► Strategic procurement channel

For a strategic procurement, such as a new service acquisition (say an xSP service, or selection of preferred suppliers of commodity products), a thorough formal process is used, most likely customized, along with the contract, to the circumstances and the nature of the procurement. IT involvement is very high with the full engagement of corporate procurement, legal and finance functions. IT not only focuses on requirements and their satisfaction but also long-term effects on strategy, technology, application and vendor portfolios, on improving substitutability and reducing total cost of ownership. Requirements are well defined before approaching vendors within a market of potentially unknown size, so vendor selection and sub-selection is the norm.

The process, which could be assisted by automation (such as e-auctions in the final bid process), requires very high interaction with vendors who need to demonstrate capability. Such procurement is likely to be of high cost and risk, complex to implement, and have critical performance requirements. Most likely it will also define or constrain what products or services will be procured later using the other procurement channels. It is not likely that this type of procurement will be turned over to corporate procurement, though some organizations have turned to vendor selection specialists or, where present, outsourcing providers, to assist with large, complex procurements.

#### ► Custom fast-track procurement channel

A custom fast-track process is used for the procurement of products or services composed of predictable, possibly creatively combined, components supplied by a well-established market, such as an accounts-payable package or PeopleSoft development project. The process might well be owned by IT but formally engage corporate functions, as well as business units. It is formal, but relatively easy to use, and likely to be significantly automated. Interaction with vendors is relatively high, with IT focusing on implementation issues, and how customization

needs, if any, may best be accommodated, with due regard to implications for commoditization.

The procurement uses a standard or readily modifiable contract or ‘deal sheet’ (usually attached to a standard contract), and at times may also constrain what products or services are permitted in future related procurements. Procurement cost is in a medium to high, but pre-known, range. Risk, complexity and performance are also predictable due to the relative maturity of the product or service. This procurement channel is best facilitated by a centralized IT vendor management function where fast-track processes and tools can be defined, disseminated and supported in a standard and leveraged manner.

#### ► **Opportunistic procurement channel**

An easy to use, fast and mostly automated process is used for the ‘opportunistic’ procurement of a product (and possibly a service, such as setting up a video-conference) with known requirements, possibly involving creative combination of components but with marginal, if any, customization. Of medium, and knowable, cost and risk, the procurement may require vendor interaction on IT main concerns around implementation, configuration and use issues. The vendors are known (constrained through prior selection) and possibly accessed through e-catalogues (for small quantities) or e-market mechanisms (for medium to large quantities).

In some cases vendors and buyers obligate themselves via e-contracts. Both selection of vendors and a vendor’s components could be automated, with the guidance of ‘wizards’. Because much of it is “virtual,” this procurement channel can be supported by either an internal vendor management group, a corporate procurement function or an outside industry buying cooperative or exchange.

#### ► **Instantaneous procurement channel**

An easy-to-use, fast and automated process is used for procurements of pre-defined pre-approved products of relatively low cost and risk from known vendors, constrained through prior selection, and probably accessed through an e-catalogue. This channel is the same one used throughout the enterprise for ‘commodity’ procurements of all kinds. A cooperative or third party might provide the procurement service if buying power is significantly enhanced, and if it does not compromise commercial interests (for example, the vendor is also a customer). Otherwise, this procurement channel should be left to corporate procurement.

The more enterprises commoditize their IT portfolios the more IT procurement can become a commodity function, requiring less and less IT skill to execute. Efforts by IT organizations to commoditize portfolios and reduce their ownership of commodity procurement should be encouraged and recognized. However, some IT procurement – such as strategic procurements or IT service outsourcing – will remain complex and require high IT engagement and sanction, if not control.

Many IT professionals covet their procurement responsibilities and are reluctant to give them up. However, sharing IT procurement activity should not mean the loss of the IT-vendor relationships necessary for the ongoing transfer of knowledge on product and process innovation.

Besides being freed to focus on the strategic procurements, IT organizations need to master the value-creating application of technology. The need for this seems to be supported by an

apparently undistinguished industry track record. Most enterprises are still hard-pressed to find value-creating investments, judging from the results of a recent McKinsey & Company study<sup>4</sup>. The company examined productivity in 59 US business sectors and found only six (retail, wholesale, securities, telecommunications, computer assembly, semiconductor manufacture) accounted for the national surge in US productivity between 1995 and 2000. And even then, the study also found that “IT investment had a significant impact on productivity in some industries and virtually none in others”. In another study, only 44 per cent of IT executives in 200 enterprises surveyed by Unisys Corporation in October and November 2001<sup>5</sup> reported a positive return on IT investment – but even this might be overstating performance bearing in mind the source of the responses.

Good procurement processes need effective distribution of activities and elimination of those that don’t add value, such as shifting order-processing responsibility to internal customers and automating the approval process. The goal must be to reduce the time and steps between an internal customer’s request, its fulfilment, and settlement.

An automated procurement system, self-serviced from the desktop, can help an enterprise achieve its procurement goals: consolidation of purchases, and improved process and governance. It should also provide flexibility in policy programming, such as authorizations, signoffs and signature authorities. A system that is convenient, easy to use and effective can sharply reduce or eliminate off-contract purchases.

Enterprises have made increasing use of automated purchasing processes such as supply chain automation, e-markets, e-catalogues, e-enabled reverse auctions – for example, see [Sun Microsystems](#) and [UTC](#), and even Web support for major strategic sourcing (see [Figure 7](#) for a small sample of procurement automation products). Commoditization of IT raises the opportunities for using such capabilities and making much IT procurement a consistently well-managed and efficient process. IT needs to learn what these automation capabilities can do and exploit those that have proved beneficial.

Process enhancement alone will not suffice. Enterprises need to measure to master the IT procurement processes (see, for example, [Corning Inc](#) and [Dupont](#)). Measuring the process is only one element, measuring procurement savings goals and achievements another. Measurement practices also need to extend to revealing and understanding cost of ownership factors and drivers, and cost-of-quality trade-offs. For service procurement measurement needs to focus on the cost drivers, particularly where they originate with the buyer rather than the vendor.

Automation is essential to sustained measurement, but this requires not a small investment. Packages may help but early versions of Supplier Relationship Management (SRM) systems have been expenditure oriented, rather than capturing the information and links needed for good analysis and roll-up. Emerging SRM systems appear to be overcoming this with their event-based approaches. An alternative approach is to exploit the typically better-information capabilities of vendors. Arranging with principal vendors (say the top 40-50) to provide and maintain such information is the ideal, and could be made a condition of future business.

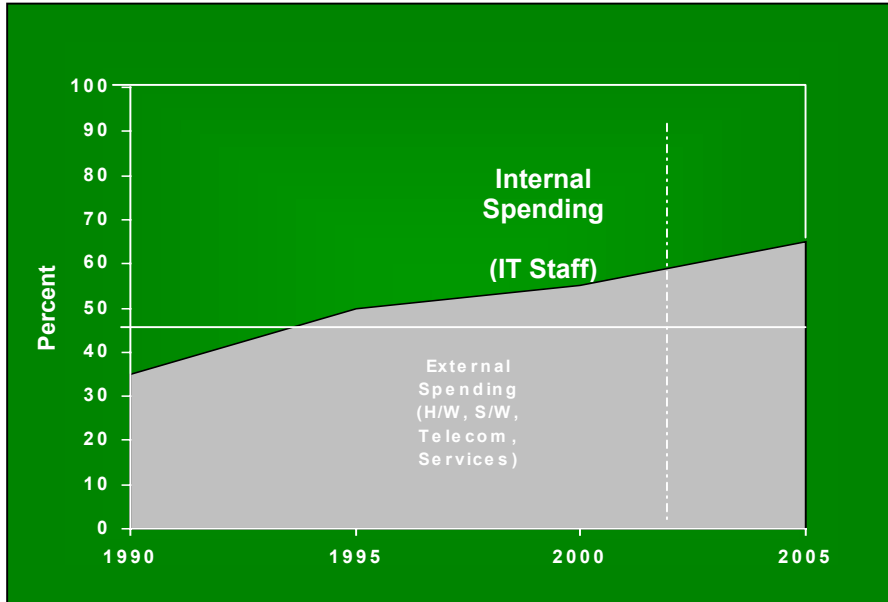
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<sup>4</sup> “Deepening Wrinkles in the New Economy”, Louis Uchitelle, The New York Times On The Web, October 17, 2001

<sup>5</sup> Information Week, 20 December 2001 (<http://www.informationweek.com/story/IWK20011220S0010>)

**Appendix**

**Figure 1: External vendor spending now accounts for more than half of the IT budget**



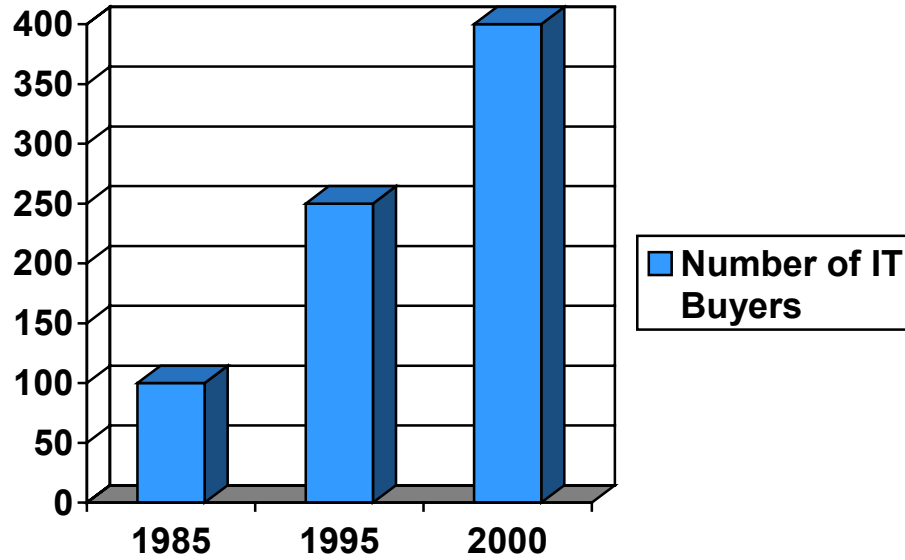
Source: Leverage Partners, Inc 2002

**Figure 2: The number of domestic IT vendors used by the typical Fortune 500 corporation is dramatically increasing**

	1985	1995	2000
Critical suppliers	2-3	20-30	40-50
Important suppliers	10	300	600
Total suppliers	500	1,000	3-10,000

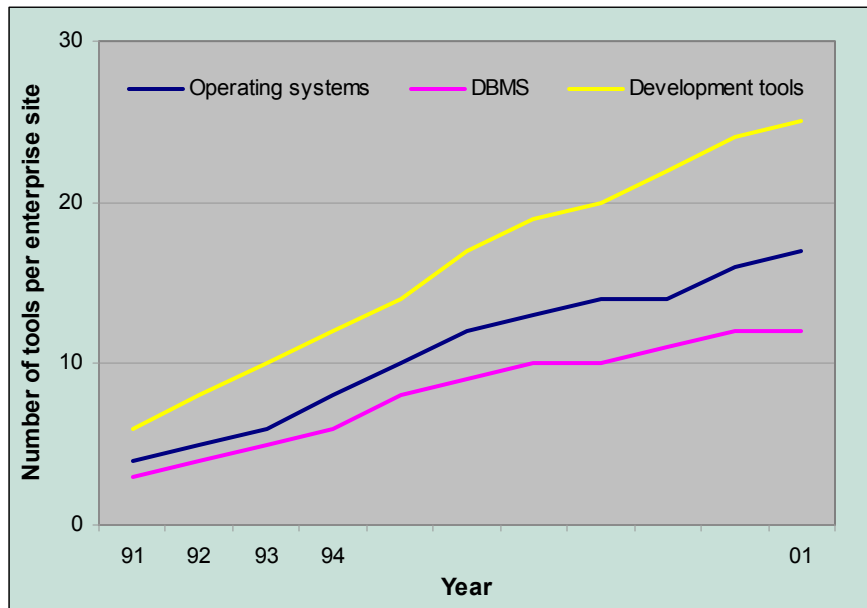
Source: Leverage Partners, Inc 2002

Figure 3: The number of technology buyers within the enterprise is increasing

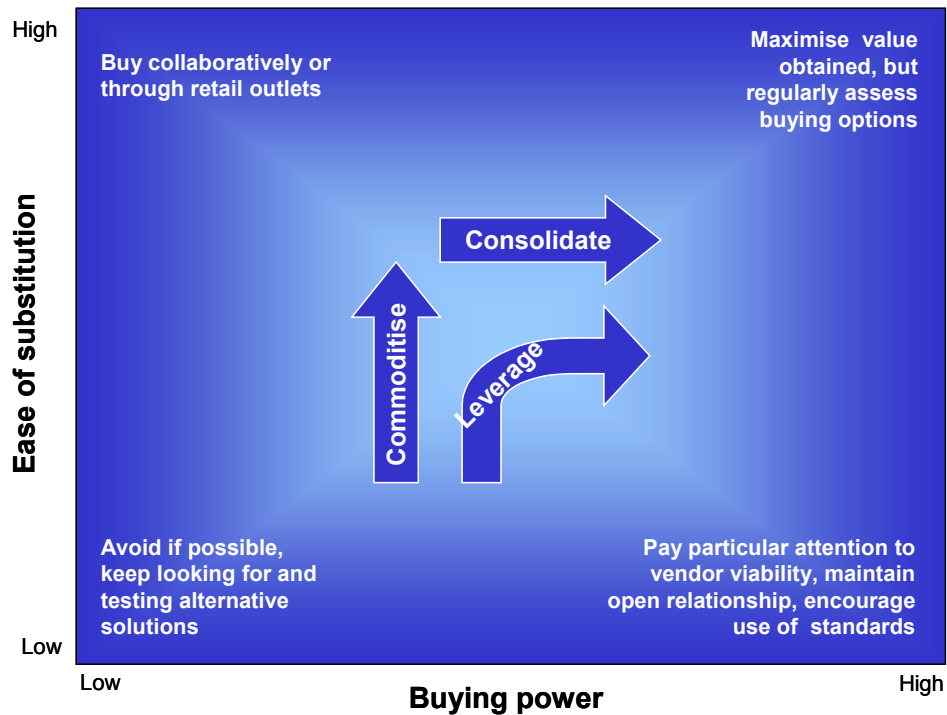


Source: Leverage Partners, Inc 2002

Figure 4: Average number of tools per Fortune1000 site



**Figure 5: Opportunities for leverage increase when IT products and their vendors can be readily substituted.**



**Notes:**

1. Components of product or service ease-of-substitution:
  - Number of vendors in the market
  - Extent to which IT implements standards
  - Extent of customization
  - Organizational sunk investment
  - Organizational pervasiveness
  - Learning curve to use effectively
  
2. Components of product or service buying power:
  - Amount of expenditure relative to others' expenditure
  - Amount of expenditure relative to the vendor's total revenue
  - Prestige gained by vendor in your enterprise
  - Number of vendors in the market

3. Examples:

Ease of substitution	Buying power	Example
Low	Low	Windows Office for most enterprises
Low	High	Cray neural network computers for large enterprises
High	Low	Desktop PCs sourced from multiple vendors
High	High	Desktop hardware and software sourced from a common reseller

**Figure 6: A real example of an enterprise's goals for reducing its technology portfolio and increasing its buying power**

Architecture component	Baseline count	3-year target	5-year target	Source of savings/leverage
E-mail systems	8	4	1	Reduced number of staff End user productivity
Wide area networks	8	3	1	Build versus buy WAN consolidation
Major data centers	14	9	3	Lower real estate cost Reduced number of staff
Mainframe/mid-range platforms	24	14	6	Reduced number of staff Reduced hardware/software cost
LAN operating systems	8	5	3	Reduced platform complexity – lower support costs Central monitoring – support cost <sup>6</sup>
Desktop hardware platforms	15	9	5	Volume purchases <sup>7</sup> Reduced number of staff
Charts of accounts	52	1	1	Reduced number of finance staff
General ledgers	56	15	1	Reduced number of finance staff
System helps desks	24	12	6	Lower real estate cost Reduced number of staff

Source: Leverage Partners, Inc 2001

**Figure 7: A small sample of procurement automation products**

Oracle iProcurement, a component of Oracle Procurement – Internet based procure-to-pay solution. With a web browser to access Oracle iProcurement, users can find goods and services, add them to the shopping cart, and follow a simple checkout process to make purchases. (See, for example, “Compaq Saves \$50 Million Using Internet Procurement”, Mitch Wagner, <http://activeanswers.compaq.com/ActiveAnswers/>)

Cardonet Inc. (Santa Clara, California) E-Catalog Automation Platform for creating and managing electronic catalogs, has two main modules: the Catalog Manager for data extraction, transformation, aggregation, and taxonomy management; and the Channel Manager for channel definition, customization, catalog loading and syndication. (See, for example, “Cargill launches internal online catalog”, Mark Hall, *Computerworld*, 9 July 2001)

ABC Technologies Oros® Value Chain Analyzer for Collaboration™, delivers detailed cost analysis information allowing trading partners to establish common data, view shared information, and manage costs and profits collaboratively. (See, for example, “OMI and ABC Technologies Offer Supply Chain Profitability Tool”, ABC Technologies press release, 24 May 2001, <http://www.abctech.com/company/press/default.asp>)

**Links to cases:**

[Ameritrade](#)

[BellSouth](#)

[Corning](#)

[Dupont](#)

[Fidelity](#)

[GlaxoSmithKline](#)

[Merrill Lynch](#)

[Principal Financial](#)

[Schlumberger](#)

[Sun Microsystems](#)

[United Technologies](#)

[USAA](#)

**GlaxoSmithKline, UK-based global pharmaceutical and healthcare corporation**

Extract from *Supply Management and IT Strategy: A Good Fit*, Carolyn Pye Sostrom, October 2001, *Purchasing Today*, page 39

Since Glaxo Wellcome and SmithKline Beecham merged in late 2000, procurement management has been involved in IT purchases. “Before, procurement involvement was more distant in the IT world. We supported it but didn’t have a close relationship. The merger created an environment that helped us improve our internal relationships – it forced sacred cows to be reviewed,” says Guy Allen, director of global IT procurement.

“Our global success is so dependent upon IT working together throughout the organization,” says Allen. In June the company reached its annual 2001 target of £17 million in savings on IT purchases, and expects a total of £30 million by year-end. The company frequently uses its global leverage, but the strategy is flexible to meet market realities or business requirements. For example, many elements of telecommunications services should be negotiated globally, but some require local deals because of country differences.

It’s not the mandate that makes others sing procurement management’s praises. “Go to any senior manager and tell him you can save him money on IT purchases. If they believe you, they’ll want to hear more,” Allen says. “You need to have credibility in the cost-savings numbers you present.” At GlaxoSmithKline, two professionals from the finance department sign off on any cost-savings numbers presented by procurement to other departments.

It’s important to have an IT procurement strategy with well-publicized targets. “We’ve made our goals very clear that we have to save a certain amount over three years, and we’ve told our internal customers,” Allen says. “This unifies our function.”

There are still some divides in what IT does and what procurement does. “Largely, procurement look after the commercial area and IT provides technical input and leadership, but there is definite crossover,” Allen says. “Quite often, there’s an innovation in the supply base that procurement can bring forward. I wouldn’t expect to determine IT vision and strategy but I may feed data into it.” Procurement management professionals help in IT sourcing and selection by bringing an impartial filter to the decision-making process. “We listen to the supplier and figure out what is reality,” Allen says.

GlaxoSmithKline created a Web-based system to help manage vendor contracts. Goals included keeping a higher percentage of spend under contract, speeding up contract creation, and increasing familiarity throughout the organization of the vendors used. Users specified that they wanted an executive summary page for each contract, pre-approved templates for creating new contracts, automatic alerts on upcoming contract expirations or automatic renewals, the ability to search on specific fields, and easy renewal of existing contracts. GlaxoSmithKline is making arrangements to market this system externally through a third party.

## Ameritrade

Extract from: *Early involvement is key to IT procurement success*, 21 Jun 2001, Purchasing Magazine Online

Marge Lopez, corporate sourcing officer was hired by the CIO to create and then manage a procurement department. Relatively few companies have functions devoted to IT procurement. “Typically what they have is a person with procurement responsibility within the IT operation. These people have very little control.” At Ameritrade she quickly assembled a group of three lawyers, with technical backgrounds, to support the company’s technology operation.

“Having an IT procurement operation can have significant impact, not only in terms of cost savings, but also of quality of products and services and expediency”, says Lopez. In her first year with Ameritrade, Lopez helped reduce costs by \$11 million by consolidating about \$60 million of technology buy.

“I identified a number of companies as key technology suppliers. I looked at the terms and conditions under which we were doing business and found we were paying standard prices for, say, Sun equipment. There wasn’t much in terms of negotiated onsite support or maintenance. So, we were able to save 20% to 30% simply by negotiating the discount we should have been receiving based on our volume.”

Lopez says it’s important for individuals in IT procurement to be conversant in technology. “You have to understand the concepts to negotiate a software license. There’s a complex set of issues you need to understand well in order to support.”

Lopez’s objective for IT procurement was “to minimize risk and increase value”. But benefits have been more far reaching. “We’ve also been able to isolate procurement activity from IT, which allows procurement professionals to do their job. We’ve leveraged requirements, implemented best practices, introduced a means for quality control and improved service. This also allows the technology folks to focus on their core functions. I think this is most critical.”

Lopez had “huge success” because of the level of support. While she has responsibility for all procurement, she tackled IT first and used her success there to market involvement in other areas.

Setting up a technology procurement department required the building of an infrastructure. “This is not something you can do overnight,” says Lopez. “It takes at least six months. Not only do you have to have qualified staff, you also need the means to control expenses. Procurement must be the function that completes contracts and issues POs. You need a good request system so internal customers have access to the operation. And, you need good request-for-proposal and request-for-information templates, non-disclosure agreement and contract forms.”

### **BellSouth Telecommunications**

Extract from: *IT Contracted Professionals: Optimizing and Managing the Supply Chain*, NAPM Conference, May 4-7, 1997, Pamela M. Beard, Relationship Manager - Contracted Professionals, and S. J. Coleman, Director - Supply Chain Management

BellSouth's use of technical contractors grew out of control to over \$100 million annual spend on over 1000 from 90 suppliers. It had lost the ability to leverage buying power. The clients were spread over multiple subsidiaries with no central control. Suppliers capitalized on this – their rates for the same type of work fluctuated. Supplier selection was often based on relationships and contacts with upper management.

The primary goal of BellSouth's contractor initiative was to manage the entire supply stream to gain competitive advantage, increase quality, lower costs and reduce administration. Reducing the number of suppliers was considered critical to success.

A cross-functional team of IT and Procurement management was formed, led by Procurement. It canvassed end-users to determine the skills being utilized as well as those needed in the near term. The initial phase aimed to provide BellSouth with an adequate supply of professional talent. An RFP was sent to a wide base of suppliers. The team subsequently issued its initial preferred supplier list of 34. A report card was developed: information was gathered on quality of service, expertise of engaged personnel and overall satisfaction.

Once continuity of supply was assured, BellSouth turned to learning more about technical professional services. The focus was on the suppliers, and on best practices for acquiring and managing supply. Once this research was complete, the team realized the supplier base could be reduced much further.

With the goal of moving from a contract-transaction to a supplier-relationship management culture, the team set out to reduce the supplier base to less than ten, including 'tier-one' management consulting firms for strategic needs and emerging technology, 'mid-range' suppliers for tactical roles, and body shops to service simple requirements.

An RFP was distributed to 75 suppliers and a short list of 18 candidates selected. The next step involved reviewing references and internal assessments of projects, client interviews and report cards. Finally, in-depth interviews were conducted with short-listed suppliers. Three suppliers in each tier were selected.

The selection team evolved into an implementation team. Leadership moved to IT. The team developed a process for transitioning to the nine suppliers. It revised the internal ordering process to reduce cycle time, eliminating a number of approvals when one of the nine suppliers is used, and instituting additional ones if a client believes none of the nine could fulfil the needs.

Managing resistance to change was difficult. The client was reluctant to use the preferred supplier list. However, the CIO and the other IT executives were persistent in their support and communication. Internal business pressures – rapidly declining budgets and adverse audit findings – increased awareness and willingness to use a disciplined approach.

BellSouth now conducts periodic supplier-group meetings to review needs and concerns. The suppliers have significant input into BellSouth processes and have developed committees to address issues such as skill definition and resources allocation. The goal is to make suppliers a

team serving BellSouth clients. BellSouth may not always have nine suppliers, or the same nine. While it wants to keep the supplier base stable, only those suppliers who cooperate with BellSouth and each other will remain in the long term.

**USAA, insurance and financial services for the US military community**

Extract from: *Tighter Budgets Are Changing IT Contract Negotiating Process*, Eric Chabrow, Information Week, 21 September 2001

in 2000 USAA instituted a process to put all IT contracts through new procurement-led groups. David Garrison, senior VP of corporate services, emphasizes that the CIO can veto any deal the procurement unit strikes. "IT is our customer," Garrison says. "IT has a budget, and they want the right price for a product."

USAA has two groups that negotiate IT contracts: A high-risk group, including procurement and legal specialists, that handles purchases exceeding \$500,000, and a second group, including former IT managers with a knack for negotiation, that handles smaller purchases and licensing agreements. Garrison says the strategy has saved the company nearly \$100 million this year. "We're putting the right expertise in the right spot," he says.

USAA recognizes the importance of strategic vendors. USAA created a third IT procurement team of accountants and financial analysts who evaluate whether a vendor has the financial strength for the long haul. Why? To spot companies such as MarchFirst, which USAA was working with when the Internet consulting firm declared bankruptcy earlier in 2001. "We've had some suppliers that have failed us," Garrison says. "We don't want to get into that situation again."

USAA procurement staff recently got a software company to lower its price for an E-commerce system from \$7 million to \$2 million. Garrison says USAA used information brokers to unearth evidence that the vendor, which he declined to identify, sold the product to another company at the lower price – something IT staffers aren't likely to know about.

**Principal Financial Group, Des Moines, Iowa**

Extract from: *Managing IT contracts cuts costs, improves efficiency*, Susan Avery, Purchasing,

20 September 2001

Principal Financial Group's purchasing operation has used a computer system to manage its contracts since early 2001. "We need to make sure internal customers are aware we're nearing the end of a contract. Timely notification helps to ensure that we have enough time to make a transition," says Jan Becker, assistant director-corporate purchasing, responsible for negotiating and administering IT contracts and managing the company's asset management program. Without a system like this, Becker's group would simply receive 30-day notice from the supplier that the contract is due to expire along with an invoice for an additional year.

"It's not just the supplier who has obligations to fulfil a contract. For example, "According to contract, we're obliged to report annually to the supplier the number of claims processed. We may be able to process, say, up to 20 million claims each year, but for every claim over that we have to pay an additional fraction of a cent to use the software," says Becker.

Familiarity with contracts and ability to interpret language used in them are key skills for individuals charged with responsibility for contract management, says Becker.

One of the biggest benefits to having a contract management system is cost savings. Information on the buy is at the fingertips of purchasing. If a customer needs to purchase software already in use elsewhere in the company, IT purchasing has that information and can leverage the buy to generate more savings.

Another advantage is improved efficiency. "If we are going to do a machine upgrade and our CIO needs to know the cost impact, purchasing can easily identify the contracts that may have additional costs associated with equipment upgrades," says Becker. "The system can let us know of contracts based on certain types of machine configurations."

Having a contract management system in place allows the purchasing operation to call up information on all suppliers that provide a particular piece of software. "We can obtain economy of scale by using a supplier with whom we already have a contract," says Becker. "Hopefully, we have pre-negotiated discounts for volume buying that we can use. We can also save a lot of effort by not having to research new suppliers."

## Fidelity

Extract from: *Concentrating on the sum instead of the parts*, Simon London, FT.com, 4 December 4 2001

Few companies are more dependent on IT than Boston-based Fidelity, the world's largest manager of mutual funds. The company has few physical branches. It relies on technology for everything from e-commerce to call centers. Don Haile, CIO, says 85 per cent of the trades carried out by customers take place online. Fidelity, employing 8,000 IT staff (about 25 per cent of its workforce), has familiar problems: legacy systems, a lack of integration, and concerns about reliability and overheads.

Fidelity's answer to the problem of integration is cutting-edge: it is making all of its applications compatible with XML, enabling programs to share data regardless of language or platform. Fidelity's project is about getting its own computers to work together. It is designed to cut costs and bring order to the chaotic world of corporate IT.

For example, the data required to execute an online securities transaction reside in a number of databases. In the past, the web-based trading program used by the customer had to go through a middle layer of hardware and software that connected the "front end" of the company with its "back end" data to retrieve the information. Now all the databases and applications communicate direct, using XML. The "middleware" is largely redundant.

The important benefit to Fidelity is that it has been able to dispense with most of its middleware. The XML conversion has been a substantial undertaking, taking two years so far and, says Haile, an investment running into "tens of millions" of dollars. But there has been a rapid return on investment, resulting from faster development and less spending on the middle layer. Haile also sees benefits from being able to share applications more easily between Fidelity's semi-autonomous divisions.

## United Technologies Corp (UTC)

Extract from: *UTC saves 30% using reverse auctions to purchase services*, Bob Mueller, Purchasing Magazine Online, 20 September, 2001

UTC held its first Internet reverse auction in 1997. Since then, it has held over 2,000 auctions for more than \$1.5 billion worth of contracts (from a total purchasing volume of about \$14 billion a year), all of them through FreeMarkets, an Internet marketplace in which UTC owns a small stake. Savings have exceeded \$260 million. If online bidding works well for products, reasoned James Jordano, director of strategic sourcing, why not apply it to the millions UTC spends on professional services?

Jordano prefers 'competitive bidding event' – it puts it in the context of established purchasing practices. "We use this technology to determine the best possible prices for the goods and services we're going to procure," he notes. "It's no different, from a decision-making point of view, than traditional purchasing process, only more efficient and much more transparent."

Late 2000, UTC's tax department decided it could no longer handle the 1,150 tax returns the company filed annually. It wanted to consolidate the work with a single, preferred supplier. Jordano suggested using online bidding to help select a service provider, and the accountants agreed to give it a try. Online competition for services was an entirely new concept.

First step was to meet with the tax department and set some basic constraints and requirements. Next, Jordano worked with FreeMarkets to build a list of prospective bidders. A request for information that covered the basic requirements went out to accounting firms, and that helped UTC narrow the field to 10 players – the Big Five national firms and five large regional ones.

From the requirements grew a detailed statement of work – a request for quote (RFQ). The tax department was a bit concerned about the time and effort it would take to prepare the RFQ, but as the process got underway, it recognized that it was a necessary step however the accounting firm was chosen.

Jordano said, 'Look, if the online process doesn't work, we won't use it. But let's stop and take a professional look at what we're doing here.' Historically, the cost of preparing the returns was around \$1.4 million. Jordano argued that if the tax department could save just 10% by letting the work go out for bid, then the savings would more than cover the cost of preparing the statement of work.

Along with the RFQ went samples of each type of tax return from the previous year. In addition, UTC created a 'data room' where each of the 10 qualified bidders could spend half a day examining them and asking questions.

Researching the tax department's needs, qualifying suppliers and writing the statement of work took eight to 10 weeks. The online bidding took just 45 minutes. Bids ranged from 44% below historical for domestic and foreign returns combined to 51% below for the foreign returns alone. The winning bidder was 30% below historical costs – a significant saving.

Since last February, UTC has conducted similar events for legal services, video teleconferencing and IT work. From the process, Jordano has drawn several important lessons:

Online bidding isn't a substitute for solid purchasing practices. It speeds the process significantly, and offers a degree of transparency that cannot be achieved with paper.

Two things are absolutely necessary: a comprehensive statement of work and a market.

## Sun Microsystems

Extract from: *Sun smiles on auctions*, Simon London, The Financial Times Limited, 15 October 2001

Sonia Syngal, director of procurement strategy and supplier relations, is responsible for finding efficiencies in Sun's \$9bn annual procurement budget. Her plan is to use the Internet to create a virtual market in which suppliers compete for component contracts: such as memory chips, drives, or motherboards.

She is creating a 'private exchange'. "I was taking 30 calls a week from people trying to persuade us to join a B2B marketplace," recalls Syngal. "But we could not see the advantage in sharing information with our competitors."

On Sun's exchange, the window for bidding is only 30 to 60 minutes. Bidders are free to revise their bids as often as they like during this period. The bids are open for all parties to see. The lowest bid doesn't always gets the contract. The procurement team also conducts a due diligence exercise to ensure that the promised price is deliverable. The bids are weighted in advance according to Sun's assessment of each supplier's quality control processes, security of supply and other factors.

The first pilot projects, two simple cable-supply contracts of about \$10m each, ran in May 2000. These suggested that 'dynamic bidding' could lead to substantial cost savings. Syngal was given the go-ahead to create a project team and develop software for a full-scale launch.

"The ROI was within three to six months. The biggest hurdle was persuading procurement that this was the right way to go," she says. Some suppliers were also reluctant – especially in the early auctions when demand for components remained strong. Even so, in the financial year to the end of June 2001, Sun purchased components totalling \$1bn using its private exchange. This year the target will be higher. The company usually counts on being able to knock 10-12% each year from its component costs. In the 40 reverse auctions conducted so far, savings have been double that.

Why do these cost savings arise? First, the company spends a lot of time preparing for each auction, which reduces uncertainty for the component companies. Suppliers invited to bid are presented in advance with a thick document specifying every aspect of the contract. A two-to-three-week period of dialogue follows. Both sides have an incentive to make sure that every aspect of the contract is understood because the auction "event" is so short.

Second, the tension created by the bidding process leads to more competition than a conventional tender. Suppliers must decide minute by minute whether they are prepared to drop their price another notch. Sun's experience shows that at least three bidders are required to generate real price tension. The optimal number appears to be about five. Above this there does not appear to be much price improvement.

It is unclear whether these savings – approaching \$100m in the last financial year – are sustainable. Most of Sun's reverse auctions took place during 2001, a period of overcapacity and falling component prices. In an upswing, suppliers might find more profitable business elsewhere.

An attraction for component companies is to see how low their competitors are prepared to bid, which is useful for cost benchmarking. Even so, the suspicion remains that the private exchange is a zero-sum game: every dollar in Sun's pocket comes out of the supplier's wallet.

Syngal is well aware that suppliers may loathe the process. In the long run this would damage supply chain efficiency, whatever the short-term financial gains. Sun recently hired the Massachusetts Institute of Technology to conduct confidential research into the experiences of participating companies.

The main challenges are not technological. Sun's biggest problem has been persuading diverse constituencies to accept a new way of doing business. Syngal: "We had a huge job selling this idea to an internal audience and to suppliers. Making this work has more to do with cultural change than the technology. It has been an exercise in change management."

## Corning Inc

Extract from: *Corning deploys formal process for managing IT suppliers*, Purchasing Magazine Online, 18 October 2001

At Corning – manufacturers of optical fibre, cable and photonic products, high-performance displays and components – the strategic sourcing group for information technology (IT) is co-located with IT. CIO Richard Fishburn says, "Based on savings, contract negotiations, and supplier management provided by the IT strategic sourcing operation, there's no question why the group is integrated with IT," he says.

Patricia Hairston, IT procurement manager, reports to Fishburn the CIO, on a dotted line basis, and to the company's chief procurement operations officer. She has been involved with IT strategic sourcing since joining Corning in 1998. IT strategic sourcing consists of four IT strategic sourcing analysts. The group sets strategy for all of Corning's IT purchasing activity. Transactional purchasing activities take place at local levels.

IT strategic sourcing works closely with IT managers. "We stay abreast of market conditions and we rely on the IT managers to stay abreast of the technology," says Hairston. While it was "very difficult" at first to engage IT managers in the early stages of the procurement process, Hairston says. "Now IT rarely starts the process without getting IT strategic sourcing involved."

The key is communication, says Hairston, who tracks and reports on performance of IT strategic sourcing monthly. Also, it's important for IT strategic sourcing to manage relationships with suppliers. IT managers, Hairston says, need the time to work on their projects. IT strategic sourcing analysts are trained, and have experience in negotiating and leveraging contracts for strategic supplier relationships. "We know how to work with suppliers as well as customers. In most cases, analysts have both IT procurement experience and technical backgrounds."

To manage performance of IT suppliers, Hairston uses the company's formal three-level process: (i) report card, (ii) supplier performance, (iii) supplier total-value process. Each has defined objectives.

The report card manages performance of suppliers on a general level and looks at such things as delivery and customer service – it is used for transactional-type buys. Supplier-performance evaluations allow Corning to pursue leverage opportunities with suppliers. The total-value process is for critical and/or strategic purchases.

Both supplier performance evaluation and the total-value process contain four elements: commercial, performance, quality, and value-add. *Commercial* is an understanding of the supplier's business and its financial stability. *Performance* measures a supplier's participation in continuous improvement activities; IT strategic sourcing sets objectives with the supplier and tracks its progress against them. *Quality* is an assessment that helps to develop the supplier's quality programs to assure more consistent products or services. *Value-add* measures the supplier's technical and process contributions.

IT strategic sourcing meets suppliers quarterly and sets up specifics as they relate to supplied products and services. IT strategic sourcing measures the supplier's performance and reports results internally through a supplier management governance board and externally to the supplier. Suppliers have input into the process as well. "If there is something suppliers need from IT or IT strategic sourcing, we get involved to solve the issues," she says. "It's a way for us to really work with suppliers to bring the best value to Corning."

## Schlumberger

Extract from: *Do the Math*, CIO Magazine, 1 October 2001

In the late 1990s one curious member of IT asked his peers what projects they were working on and amassed the answers in a spreadsheet. The spreadsheet included just a small sample of 120 of the company's IT projects. Jane Walton, then an IT analyst with IT services, saw the spreadsheet and found that 80 percent of the projects overlapped. For example, there were 14 separate projects trying to accomplish the same thing with customer-facing websites.

On the back end of the mad rush to the Internet, CEOs began to turn the screws. "What are we spending all this money on and why?" Walton proposed project portfolio management to quantify risk and return, prioritise and align IT projects with the business. It met with blank stares. "I probably took the wrong approach," Walton says in retrospect.

Eventually the economic crash came. At Schlumberger the blank stares have disappeared. And Walton's new title is portfolio manager. Walton has now cataloged about 1,000 projects, and there's still more to go. But by eliminating the redundancy alone, she saved the company \$3 million in the first year.

Walton's original vision was to apply Modern Portfolio Theory (see Harry Markowitz's Modern Portfolio Theory and the MPT Wizard at [www.modporttheory.com](http://www.modporttheory.com)), and to some extent, it remains her goal. But she has learned that there's a danger in stumping for the total vision. "I've found people will cite Markowitz as a reason not to use portfolio management in IT," Walton says. "They'll argue it can't be overlaid exactly and that the math is too difficult. So to some extent, I don't talk about pure portfolio theory to executives."

### **Merrill Lynch**

Extract from: *Do the Math*, CIO Magazine, 1 October 2001

The consolidation of projects into one database often produces immediate gratification for CIOs because for many it is their first holistic view of what's going on in their department. "We found when we started this that we really didn't know what our total technology spend was because divisions were spending without talking about it," says Marvin Balliet, CFO of Merrill Lynch's Technology Group.

Ranking projects is not a science, and project portfolio management doesn't necessarily make it any easier. "Suddenly we're having these incredible debates," Balliet says. "Is disaster recovery strategic or not? If [businesspeople] say they have a 45 percent strategic spend, what does that include?"

Before portfolio management, project priority in IT often meant pitting one against the other: "ERP is more important to our business than CRM." With a portfolio, it's each in terms of relevance to the business: "ERP carries a 20 percent risk with a 60 percent payoff, while CRM carries an 80 percent risk with a 90 percent payoff." That kind of understanding forces alignment and gives IT a more strategic role.

Balliet may admit to lacking an overview of his IT spending before he moved to portfolio management at Merrill Lynch, but he's developed a deft touch since then. "When I started this, about 21 percent of costs were aligned with the business. Now we're at 78 percent aligned," he says. "Because of the portfolio, we're able to fund strategic investments in a severe downturn for the first time ever" in Merrill Lynch's 116-year history.

Balliet's portfolio is split into three different budgets: utilities, or what he calls the "keep the lights on" portion; incremental upgrades; and strategic investments. What he found is that far too much of the budget is allocated to the utilities function on the left, while far too little is given to strategic investment on the right. If the budget spectrum were a toothpaste tube, Balliet's main objective now is to squeeze as much toothpaste as he can from the left side to the right.

### **Merrill Lynch**

Extract from CIO Magazine, 1 Sep 2001

Chris Corrado, CTO of the New York City-based financial services company, is working on a multiyear plan to move the company's data for its institutional customers to a storage outsourcer, StorageNetworks. "This is not something you do overnight," he says. "You're changing business processes for managing this stuff, and you're introducing new technologies to store it." Corrado thinks he'll save 47 percent in storage costs when he finishes shifting things over in 2003 because the outsourcer's work methods are better than his. "Let's say you need to acquire 100 GB of storage," he says. "The old-fashioned method is you find vendors, buy hardware, integrate it into your environment and manage it. With a managed service, you just say, 'Give me 100 GB.' You should be able to get that immediately so the acquisition is much quicker and your release capability is that quick as well."

## Dupont

Extract from: *Measuring Purchasing's value*, Susan Avery, *Purchasing*, July 19, 2001

Barney Kantar, a procurement manager at DuPont has developed a measurement program to track the effectiveness of IT procurement. It regularly tracks and reports cost savings, and other measures such as cycle time reduction and improvements in customer service. Kantar, one of three purchasing professionals responsible for buying software, is responsible mainly for negotiating enterprise software agreements.

Within purchasing there's an operation devoted solely to IT procurement, with teams for software, telecommunications equipment and services and contract labour. For hardware, there is a leasing specialist. Also located in regional offices are global non-specialized purchasing personnel.

Individuals working in purchasing have goals, set in consultation with management. "It's important for all sourcing personnel who have a hand in setting strategy, working at supplier relationships, negotiating agreements, or processing transactions, to have documented savings goals," says Kantar. He categorizes savings by avoidance or cost reduction, and allocates them back to the appropriate strategic business units. This, he says, "helps greatly when we go back to negotiate service level agreements for them."

"Most of the people in the DuPont sourcing operation will have taken Six Sigma training by the end of 2001," he says. (Six Sigma represents 99.9996%, as near to perfection as can be achieved by human-made things.) In applying Six Sigma to the software buy, Kantar is focusing on cycle time reduction.

"We've discovered our internal customers have a different perception of cycle time than we'd been measuring. In their view, cycle time begins when they hand off a requisition. There are many steps in between that time and the time that it gets to us. We are being held accountable for the lag without being really responsible for it. As a result of the project we have some very useful data that we can use not only to educate people on cycle time, but also to improve it."

Kantar, who also surveys customers on purchasing's performance and follows up on negative reports, says, "It's essential to assign an individual to the task. This ensures that it gets done in a consistent and timely manner."

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