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Financing IT Improvements

Trading Operating Expense For Capital Expense As A Strategy

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EXECUTIVE SUMMARY

The average IT organization is being squeezed in the vice-like grip of maintenance and support of ongoing operations. As much as 80% of the IT budget is being consumed by these activities, leaving only 20% for strategic initiatives and innovation. This is an untenable situation, yet there is no easy way out. A small number of organizations are taking an innovative and bold approach to their IT budgets by investing capital expense to offset high operating expenses. The result is bigger upfront cash outflows with a long-term favorable impact on operating expenses and positive contributions to the income statement albeit with a higher level of risk.

RESEARCH CATALYST

Clients selected this topic for Client Choice research.

MAINTENANCE AND ONGOING OPERATIONS ARE DRAINING IT BUDGETS

A major challenge facing CIOs today is the oppressive costs of simply maintaining the status quo, in effect, supporting all of their past decisions. Surveys conducted by Forrester Research over the past few years have revealed that IT organizations are spending from 70% to 80% of their total IT budgets on maintenance and ongoing operations.¹ Inertia can be a powerful yet subtle force, and it is exerting a considerable impact on IT budgets. Forrester has attempted to characterize this spending (called MOOSE for maintenance, ongoing operations, systems, and equipment) by category.²

IT demand outstrips supply in almost every IT organization that we speak to, so without an aggressive plan to manage these costs down, IT will not be able to deliver on the strategic opportunities required by its business partners. The real challenge is that the problem is huge and complex and consists of many pieces, the major ones being:

- **Legacy systems.** Some of these systems may be 20 or 30 years old, and while the hardware may have been refreshed several times, the applications software is extremely expensive to maintain and unpredictable when changed, and the knowledge required to maintain it is retiring over the next few years.
- **A multitude of servers.** Incremental procurement over the years to meet specific needs coupled with mergers and/or acquisitions has left many companies with thousands of servers scattered across many locations often running at 20% or less capacity. With multiple operating system platforms, databases, and other software the ongoing support costs are staggering.

- **A multitude of applications.** All of the servers identified above are running applications, many of which are probably redundancies around the organization. In large \$1 billion plus companies it's not unusual to find applications that have been duplicated across subsidiaries, divisions, and geographies. For those that have done frequent acquisitions, the problem is compounded.³
- **Skills dilution.** The proliferation of different hardware, operating systems, databases, development tools, and applications software has forced organizations to acquire and retain skills across a broad spectrum of technologies making it difficult to develop a critical mass of expertise and best practices that can be leveraged across the organization as well as staffing efficiencies.

Attacking these problems by taking an incremental or piecemeal approach won't work; it just takes too long.

STOPPING THE RUNAWAY TRAIN REQUIRES BOLD STEPS

Gaining control of and rationalizing the huge installed base requires a holistic approach across a broad front. Randy Mott, CIO of HP said it best, "In order to change the environment, you've got to work on a lot of different fronts. Choosing is losing. I can't have an incremental plan that actually leads me to where we need to be as a company."

The issue that most organizations will face is how to pay for such a massive effort. The answer is that this must be viewed as a long-term investment in the future of the enterprise. The objective is to invest capital in new infrastructure and applications, and eliminating the cost of difficult-to-maintain legacy systems, redundancies, underutilization, and staffing inefficiencies. The target result is that the depreciation and amortization expense for the investment that flows through the income statement is significantly less than the expense of maintaining and supporting all of the old stuff — leaving a healthy return on investment (ROI). The keys areas of focus should be on:

- **Data center consolidation.** With the availability of high bandwidth global networks, there are no real advantages to having multiple data centers beyond those required for disaster recovery and business continuity reasons. HP is consolidating 85 data centers down to just six. The \$100 million project is expected to provide savings totaling \$1 billion.
- **Server consolidation and virtualization.** The twin technologies of blade servers and virtualization now make it possible to run multiple applications/functions on a single large server in virtual partitions. This accomplishes the two-fold benefit of economies of scale and higher utilization rates significantly reducing the unit costs of providing server-based services. HP is planning on reducing its server count from 22,000 to 13,000, while increasing capacity by 80%.

- **Applications portfolio rationalization.** Using techniques like applications scoring, CIOs and business executives can objectively evaluate the applications portfolio to identify where to best apply focus and resources and where to freeze maintenance, replace, or even eliminate applications completely.⁴ HP, as part of its IT restructuring, plans on reducing 5,000 applications down to 1,500.
- **Automate operations.** The ultimate goal is “lights out” data centers, completely automated operations requiring limited local human involvement, but this is still a few years away. However, there are automated operations and systems management tools available today that can significantly increase efficiencies and reduce the labor component. While the average server to admin ratio is around 20:1, best-in-class IT operations have achieved 200:1 ratios through a combination of automation and improved processes and increased availability, which has the direct benefit of reducing costs of outages and eliminating labor costs.⁵

It Takes Money To Make Money

Moving forward with a major restructuring across a broad front will require a significant upfront investment. This will require access to reasonably priced capital and may be out of reach of some organizations. However, when viewed as a long-term investment with recurring annual benefits in the form of reduced operating expenses, the ROI can be significant. Reduced operating expenses come from a number of areas, as described below (see Figure 1).

Figure 1 Operating Expense Category Savings

Category	Explanation
Hardware (depreciation)	Replacing older, more expensive hardware. Increasing performance of server technology coupled with virtualization enables higher levels of capacity utilization.
Hardware (maintenance)	Newer and fewer machines means lower maintenance costs, plus newer machines are typically under warranty.
Software (licenses)	Most software is licensed per machine; fewer machines means fewer licenses.
Software (maintenance)	Maintenance fees are a percentage of the license fees; fewer licenses means lower maintenance fees.
Applications (maintenance)	Fewer applications, more packaged applications means lower support costs.
Direct labor	Critical mass, efficiencies, and automation reduce labor costs.
Facilities	Fewer facilities, fewer hardware “boxes,” and higher utilization rates means lower costs for space, electricity, and HVAC (a growing expense).

RECOMMENDATIONS

LOW-COST IT AND STRATEGIC IT ARE NOT MUTUALLY EXCLUSIVE

There is a school of thought that suggests that you can either be a low-cost provider of IT services or you can invest in IT to make it a strategic partner and source of business value, but you can't do both. Nothing could be farther from the truth. Best-in-class IT organizations both provide low-cost IT services and enable innovative and strategic business capabilities.

- **Assess your current situation.** If maintenance and ongoing operations costs are 75% or more of the IT budget, then you are a candidate for IT renovation. If your maintenance and ongoing operations costs are 70% of the IT budget and trending upwards, you are also a candidate.
- **Assess the IT organization's maturity.** Undertaking a major IT renovation requires a high level of IT management maturity, especially with respect to IT operations. If the maturity assessment reveals weaknesses, then they must be addressed first.
- **Create a capital budget to fund operational savings.** Work closely with the CFO and the finance organization to understand the financial implications and feasibility. Is capital available? Does the ROI model work? Is the board of directors on board?
- **Consider a partner.** Others have been through similar exercises. Evaluate vendors and consultants with past experience to partner with on the planning and execution.

ENDNOTES

- ¹ The purpose of Forrester's Business Technographics® July 2006 North American And European Enterprise IT Governance And Sourcing Survey was to analyze trends in the methods for governing IT in North America and Europe. The survey looks at IT spending management, IT governance methodologies, and vendor relationship management. In 2006 respondents stated that 76% of their IT budgets went toward ongoing operations and maintenance. See the February 13, 2007, "[The State Of IT Governance And Sourcing In North American Enterprises](#)" report.
- ² Every IT department also has a MOOSE: continued spending on maintenance and ongoing operations, systems, and equipment. This MOOSE, too, is big, ugly, and often hidden from view. See the October 18, 2005, "[Defining The MOOSE In The IT Room](#)" report.
- ³ Streamlining the existing application portfolio is a necessary step for organizations that have been in existence for a decade or more, especially if those organizations intend to evolve to SOA — why carry all that baggage forward to the next computing paradigm? See the January 10, 2006, "[Got Legacy? Four Fates Await Your Applications](#)" report.

- ⁴ IT management can no longer afford to manage its application portfolios blindly but must introduce some transparency and insight into the portfolio. An application scoring mechanism is a first step toward creating better application transparency, providing actionable, objective information about each application that will, in turn, enable better decisions about the proper fate of each application. See the January 10, 2007, “CIOs: Reduce Costs By Scoring Applications” report.
- ⁵ The Visible Ops Handbook describes a pragmatic approach to process improvement by establishing a stable platform. Controlling changes is seen as the key to regaining control of the IT infrastructure and a basis for process improvement. Source: Kevin Behr, Gene Kim, and George Spafford, *The Visible Ops Handbook: Starting ITIL in 4 Practical Steps*, Information Technology Process Institute, June 2004 (<http://www.itpi.org>).