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Asset Life Cycle Management - Benchmarks and Quantified Savings

By [Cameron Fisher](#)

Undertaking a program with proper tools and techniques can improve support productivity and streamline workflow for a range of asset types. The savings generated as the discipline evolves are increasingly significant.

Asset life cycle management is a strategic and valued business discipline. Few projects can provide similar improvements in cost savings, productivity improvements and end-user satisfaction gains. And the larger the enterprise, the greater the potential returns.

The savings a strong asset management solution can provide are achieved with low risk and low implementation costs. It is easily possible for an active asset management solution to produce a savings of 15-20 percent over the life cycle of every PC. These savings are the result of process improvement, work automation, organized information and streamlined resources.

Cost	Personal Computer for Three-Year Life Cycle
Purchase Price	\$2,000
Service and Support	\$6,000
Total Before Asset Mgmt	\$8,000
Organize & Utilize Information	
Inventory	-105
Standardize	-235
Sub-Total	\$7,660
Optimize Process Around Asset	
Procurement	-150
Install and Service	-800
Move, Add, Change	-220
Contract	-180
Disposal	-200
Planning	-110
Total After Asset Mgmt	\$6,000

Figure 1: Cost Savings with Asset Management Solution

When examining potential cost reductions, it is helpful to note the distinction between cost avoidance and cost reduction. Avoiding a late lease return fee or avoiding a government penalty

is an example of cost avoidance. Consuming fewer labor hours to resolve a printer driver problem is an example of cost reduction.

To establish benchmarks and quantify savings of asset life cycle management, an effective approach includes:

- Leveraged research findings
- Total cost calculations
- Estimated cost avoidance and cost reductions

Cost Avoidance

Effective asset life cycle management can lower costs. Unplanned costs occur in several areas:

- Paying for software licenses you do not need
- Paying for maintenance or warranty contracts when you no longer own the assets
- Paying taxes on assets already retired or should have been retired
- Purchasing new equipment when you have equipment in stock you can redeploy
- Paying for storage or circuits when you do not need them
- Paying lease residual value fees for not being able to locate and return the leased equipment
- Returning leased equipment with non- harvested add-ons (software, memory etc) that you actually own and can redeploy
- Purchasing non-standard equipment that is more expensive in your environment (computer brand A vs. computer brand B)
- Planning for forecasts, budgets, administration and audits with manually prepared, inaccurate information

Typically an enterprise will save 2-5 percent of total asset costs by avoiding these unnecessary costs.

Cost Reduction

Further savings in asset life cycle management come from reducing the cost of the processes around the asset. Typically these expenses are 3-4 times the cost of the asset and tend to go unmanaged. These include:

- Requisitioning assets
- Acquiring assets
- Installing assets
- Servicing assets
- Managing contracts for the assets
- Managing utilization of the assets
- Disposing assets
- Managing service level agreements around the asset

By optimizing and managing these processes, an enterprise can save 10-15 percent of the total asset cost. Combined with the cost avoidance, total cost savings average between 15-20 percent of the total asset cost.

Sources of Productivity Improvement

Typically enterprises over-invest in their capital asset base by 5-10 percent because they lack awareness of the location, user and performance of these assets. Organizations either take too long to get the assets operational initially or take too long to restore them to operations when problems occur. Therefore, larger amounts of stock and backup assets are purchased, housed and maintained to compensate for the suboptimal productivity.

Asset life cycle management improves the productivity of assets by accelerating time to use and, therefore, time to benefit. Restoring these assets from outage to productivity more quickly adds to the gains. The need for integrated workflow when procuring assets does not stop when the asset is received; it continues through asset deployment, use and disposition.

Installation work orders can be triggered from advance ship notifications prior to the asset even arriving. Scheduling can then occur for installing the asset upon arrival. It is not uncommon for enterprises to reduce the time it takes an asset to become operational from six weeks to less than one week.

Furthermore, in cases when assets become non-operational, asset life cycle management helps restore assets to being productive more quickly. Either by providing tools to end users so they can restore performance themselves or by providing a root cause database and expert problem resolution capabilities to resolve problems quickly.

Depending on the actual cause of suboptimal productivity, asset life cycle management can improve overall asset productivity 15-20 percent on average, reducing the capital budget requirements, reducing the asset base and improving the return on invested capital for the enterprise.

Status Quo

An average notebook computer costs approximately \$2,000, or does it? Upon purchase a personal computer will generally remain in service for three years. When all the process costs associated with the computer are added in over the life of the computer, the total cost for an average enterprise can increase to more than \$8,000. The total process costs (about \$6,000) represent three times the purchase price. Poor performing enterprises exhibit life cycle support costs that exceed the threefold \$6,000 benchmark.

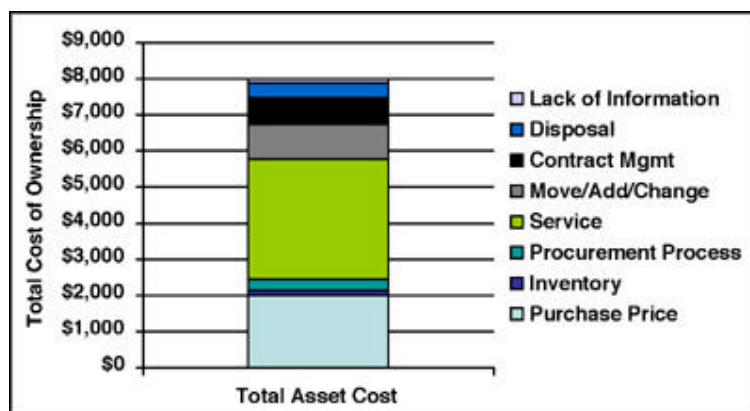


Figure 2: Life Cycle Cost of a PC

Inventory Costs

On average, a notebook computer is manually inventoried two times each year. Over the average three-year useful life, the computer is inventoried six times. On average it takes approximately 30 minutes to inefficiently inventory the computer at a fully costed hourly rate of \$50. Therefore at an average enterprise, the total inventory cost is six occurrences X \$50/hour X 0.5 hours, for a total cost of **\$150** during a three-year life cycle.

Procurement and Planning Costs

According to leading analysts such as Gartner, Inc., Aberdeen Group and META Group the average cost to process a purchase order is \$150 and the cost to process a lease order is \$225. For example, suppose that 25 percent of assets within an enterprise are leased overall. The weighted average procurement cost is \$170 ($\$150 \times .75 + \$225 \times .25$). The cost to receive, reconcile and pay the invoice is typically an additional \$50 according to the analysts. Then, add in a \$25 cost to plan procuring asset requirements and the total average cost is around **\$300** during a three-year life cycle.

Installation Costs

The installation cost is made up of two components, the cost to schedule an installer technician and then the cost to actually install the equipment. The cost to schedule an employee for any type of service on average is \$25. The cost of installation is the hourly labor charge times the number of hours required for installation. The fully costed hourly rate is \$60 and on average it takes an hour to fully complete an installation. Therefore, the total one- time installation cost is $\$25 + \60 or **\$85**.

Service Costs

According to research from Gartner Inc., an average asset requires two service calls per month (to request service and also to check on the status of service). Therefore, over the three-year useful life of the system, an asset will have 2 calls/month X 12 months X 3 years or 72 service calls. These 72 calls will take on average 30 minutes to resolve at an hourly loaded Level 1 technician cost of \$40. Most of these calls will require some work to be scheduled in the average enterprise. Therefore, the \$25 scheduling fee per call needs to be added. The total service cost for 72 calls is therefore **\$3,240** [$72 \times ((.5 \times \$40) + \$25)$] during a three-year lifecycle.

Moves and Change Costs

On average an asset requires one move per year and therefore over the life of the asset it will move three times. On average according to experts, the cost to perform a move is \$325 (cost to schedule, time to move, time to update assets, drivers, etc.). Therefore, the total move/change costs for an asset is **\$975** over three years. Different corporate cultures may experience more frequent moves and more numerous changes.

Contract Management Costs

Personal computers on average have at least four contracts associated with them (maintenance, warranty, software, property tax and lease are the most common). At least twice per year the

asset-to-contract relationships will be reviewed and therefore a total of 24 (four contracts X six reviews) will be conducted. Reviews typically inspect for compliance, expiration, usage, warranty coverage and tax treatment. The average duration to review a contract per asset installation is 30 minutes at a fully costed labor rate of \$60/hour for a qualified reviewer. Therefore the total contract management costs are **\$720** over three years.

Disposal Costs

There are several components to the disposal cost including the cost of space the asset continues to occupy if it is not disposed of, the cost to process the disposal, and the opportunity cost of foregone residual value. The cost to sanitize data storage and dispose of the asset according to analysts is approximately \$200, the lost residual value upon liquidation is around \$150 and the space usage cost pending disposition is approximately \$50 per asset. The total cost is approximately **\$400** upon conclusion of the three-year life cycle.

Planning Costs

Most enterprises struggle with their planning, forecasting, budgeting, administration and audit compliance activities. The types of asset-related expenses collected to perform asset management were explained above (warranties, maintenance, leases, taxes, conditions, expirations, etc.). Estimated costs to plan, monitor and report these expenses are estimated at \$50 per asset per year. That is .25 hour X \$50/hour for a qualified analyst X four budgets/forecasts/audits reports prepared per year. Therefore, the average planning cost per asset is **\$150** for three years.

When all the processes are added to the purchase price, the total asset cost over the three-year life is **\$7,995** including process and support costs. Your enterprise may be better in some areas and worse in other areas. This total cost framework can be used as a benchmark in determining your organization's total cost of ownership and the savings potential from improved asset management practices.

Quantified Savings

Organizing and Utilizing Asset Information

The first two stages upon asset life cycle management implementation are the organize and utilize stages. In these stages, an enterprise organizes the asset information on hand to be able to understand what assets are owned or leased, to whom are assets assigned, where are assets located, what is the status of the asset and what is the total cost of the asset. These are valuable process steps as the enterprise reduces the cost of creating, maintaining and supporting the asset inventory.

By understanding the total costs of its assets, an enterprise can standardize on systems under its purview that perform best and are the most cost effective. By selecting more optimal products, the enterprise can reduce the personnel and time required for service, installation, moves, adds and changes. Costs are reduced on average from \$8,000 to \$7,660 for a savings of **\$340** per personal computer. This equals more than 4 percent of the total asset cost derived from better organizing and utilizing asset information.

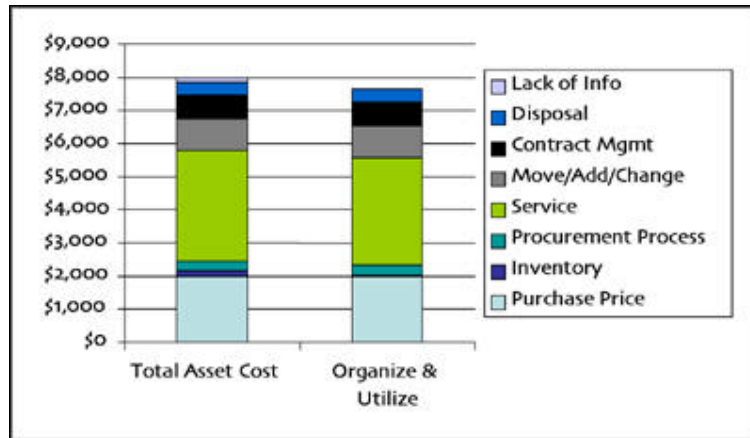


Figure 3: Organizing and Utilizing Asset Information

Inventory Savings

An enterprise that has adopted an asset life cycle management solution needs a reliable automated inventory solution as the epicenter to know:

- What is owned?
- Who has it?
- Where is it?
- Is it sufficient/excessive?
- How well is it performing?
- Is it achieving business needs?

The automated inventory capability reduces the time and cost to maintain an accurate inventory. It also maintains a more accurate inventory that has significant process benefits. The more direct inventory savings are driven by reducing the time it takes to complete the sophisticated inventory detection from 30 minutes per asset to 10 minutes or less, a savings of **\$105** over the life of the asset. Since it takes less time to perform the inventory, fewer personnel overall will be assigned to this requirement. The data derived is also more up to date, more reliable and available more frequently or real time.

Standards Savings

Analysis has shown that an environment with several standards drives up total costs by about 5 percent on average. Suppose an organization has 60 percent from one supplier and 40 percent from a second supplier. If we assume the 40 percent is a more expensive supplier, an enterprise can reduce its service, installation and move/change expenses by 2 percent if a single optimized standard is chosen. There will be fewer service calls and installations due to selecting a single supplier with the best performance. Changes will take less time due to unified tasks and skills sets, resulting in fewer personnel required to do these service levels.

Additionally, by concentrating more volume with a supplier, it is estimated an additional 1-2 percent procurement savings can be saved off purchase price negotiations.

Therefore, maturing the process to include standards to better organize and utilize assets reduces the costs in several process areas including:

- Purchase price
- Procurement process
- Inventory process
- Installation process
- Service process
- Move/add/change process
- Contract and warranty process
- Disposal process

Overall, better organizing and utilizing saves an average of **\$235** (.033 X 6,000 + .02 X \$2,000) or about 3 percent of the total life cycle asset cost per personal computer. When multiplied by the number of systems in an enterprise, this amounts quickly to millions of dollars in savings. Comparable savings apply to monitors, servers, handheld, peripherals, etc.

Sourcing from multiple vendors will occasionally provide certain risk reduction considerations. However, most organizations are not aware of which internal departments are purchasing what equipment from which vendors. Without controls on maverick buying, the quantity of suppliers and standards can mushroom and undermine any existing weak control mechanisms.

Optimizing the Business Processes around the Asset

A rewarding aspect of asset life cycle management relates to optimizing the business processes around the asset. This requires strong understanding of current business processes.

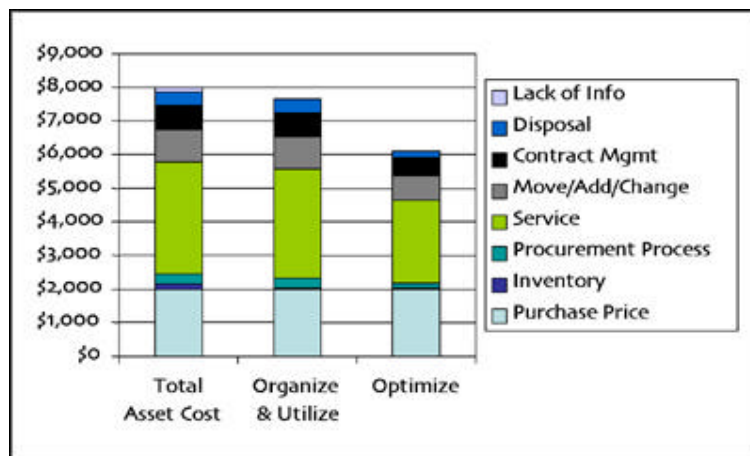


Figure 4: Optimizing the Business Process around the Asset

Through automation and reengineering, you can correct excess steps, hand-offs, paper handling and expended labor. Doing these steps effectively will reduce the total cost, improve service quality and reduce the cycle time to get work accomplished. Enterprises can save about **\$1,675** per personal computer asset from the total asset life cycle cost.

Mobile Considerations

Discussions about desktop management generally incorporate mobile considerations. However, special considerations apply to mobile and handheld devices. Often, handheld devices at first glance may appear inexpensive. However, life cycle costs and vulnerability risks affect these assets in special ways.

For many organizations, attaining a mobilized, synchronized workforce is increasingly desired. Managing costs to procure, install, manage, contract, support, secure, report and retire mobile machines requires significant life cycle attention to attain efficiency, avoid rogue configuration and protect intellectual property.

In a January 2003 study entitled, "Untethered Computing: Feasible, Economic and Desirable," IDC identifies significant advantages of mobilized workers. IDC estimated the productivity gain for a mobile professional to be about \$500 per month. Hence,

- Notebooks and handhelds are sufficiently different from desktop PCs to require targeted strategies that minimize total cost of ownership, improve vendor selection and optimize deployment to mobile workers.
- Enterprises have learned, often the hard way, that mobile PCs are more than just PCs with handles. For example, mobilized assets can be used outside regular office hours and can travel to other geographical areas.
- The annual failure rate of notebooks and handhelds is higher than that of desktop PCs. Ruggedized or not, laptops handhelds and even Tablet PCs are deployed in a variety of situations including construction, real estate, retailing, mobile salesforce, etc. In such situations weather, humidity, dust or jarring are just a few examples of unconventional conditions.

Demanding business conditions create support challenges that lead to a higher total cost of ownership (TCO) that can range from 34 percent to 68 percent more than that of desktop PCs. Since the real costs of untethered computing is relatively high, the benefits realized from improved manageability are substantial.

Informed decision making requires IT managers to assess and manage:

- The true TCO of notebooks/handhelds versus desktop PCs
- Which types of users will benefit from using notebooks
- Which machine types and manufacturers yield best performance, TCO, ROI
- What best practices will reduce the TCO of mobile PCs

Generally, the average enterprise will save at least 10-15 percent of the total life cycle cost.

Monitors, printers, routers and assorted assets tend to exhibit less complex life cycle and support characteristics, but are nevertheless candidates for heightened control.

The overall conclusion remains. Undertaking a program with proper tools and techniques can improve support productivity and streamline workflow for a range of asset types. The savings generated as the discipline evolves are increasingly significant.

Savings Scenario - Inventory and Software Management Success at Navigant

Precise Licensing Statistics Can Translate into Cost Reductions and Efficiencies

Since 1997, Navigant has grown to become the second largest travel management company in North America in part by acquiring more than 40 businesses. Such rapid growth made administering software licenses difficult and time-consuming. "We have many large operations in several countries," said Fillmore. "When managing our licenses before, we had

operations in several countries," said Fillmore. "When managing our licenses before, we had to depend on manual counts and some educated guessing. It could take several days to compile the results. With Inventory Solution and Application Metering Solution from Altiris, we can discover, within a few minutes, precise numbers and types of software running on all of our PCs and if the software is even being used.

"When it's time to negotiate licenses, we know exactly where we stand. We never pay more than we should, and we stay in strict compliance with all of our licensing agreements. Also, having accurate numbers can bump us into another pricing tier which could, over time, translate into six-figure discounts on our licensing costs. The time and money-saving capabilities of these Altiris solutions alone are tremendous."

In addition, Inventory Solution not only gives Fillmore a detailed picture of the hardware and software running on his network, but it also lets him quickly determine which PCs are running unlicensed or non-approved applications. "We don't want people installing software from home on their machines. That opens us up to liability problems, viruses and other issues that we simply don't want to deal with."

Cameron Fisher is a product marketing manager for Altiris, Inc., a leading provider of IT life cycle management solutions. He has managed business systems analysis and client engagements for more than 18 years at Fortune 500 firms. Readers can contact Cameron Fisher at cameron.fisher@altiris.com.