IT asset management
A best practice guide for IT asset management
Business white paper
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Executive summary

Too many CIOs lack credibility with their peers who are line-of-business managers, and too many frustrate their CFOs, their COOs, and their CEOs because they cannot answer four questions that were long considered fundamental to running a successful business:

- What assets do you have?
- What is the return of these assets to the business, and how are you improving that return?
- How does the performance of our asset investments compare with that of our competitors’?
- What risks do the assets create for the business, and how is that being managed?

There are a lot of moving pieces in IT, and very rare is the CEO who cares about those individual pieces. What enterprise leaders care about is the value those IT components provide through reducing costs, enabling revenue streams, creating options for growth, and proving compliance. So how do CIOs translate the performance of IT assets into something the CEO cares about? How do they then prove that they are managing those assets, not only to provide a good return to the business, but a return that is higher than what is being generated by competing firms?

This paper shows how IT asset management (ITAM) enables the CIO to answer these basic questions to the satisfaction of the CFO, COO, and CEO. ITAM, which comprises processes, tools, data, and people, manages the entire lifecycle of an IT asset and so can not only answer the question what assets a company owns, but what assets it expects to soon own and what assets it expects to soon dispose of.

Because ITAM collects, aggregates, and tracks the costs of every IT asset and can logically map IT assets to business and IT services, ITAM is able to convey the cost information necessary for determining the return to the business on any given IT or business service. ITAM can then increase those returns through effective vendor and contract management. Lastly, risks associated with IT assets can be articulated and managed because ITAM manages the legal obligations associated with vendor warranties and support commitments, entitlements, and asset disposal.

Introduction

The perception of IT has evolved from being a cost center to a business enabler, prompting escalating investments in this area. As a result, ITAM has assumed high priority in optimizing financial management and enabling business alignment. This has prompted HP to augment a comprehensive suite of solutions, including best practices, for managing IT infrastructure throughout its lifecycle.

To manage an asset effectively, it is important to understand the total costs associated with that asset, and how it supports critical business services throughout its lifespan. This is referred to in terms of total cost of ownership (TCO). TCO is inherently valuable in analyzing and understanding the costs associated with the asset’s life as it relates to budgeting, allocation, accounting, and service valuation.
The growing necessity to manage and control assets

The key factors that compel you to consider a better way of handling your IT assets include:

**Cost**
With the provision of reliable, flexible, and state-of-the-art infrastructure being a key determinant for employee efficiency and competitive advantage, change is a given. But change comes at a cost, TCO, of which the purchase cost or the up-front cost accounts for only 4 to 20 percent. As the remaining TCO covers the entire lifecycle costs of the equipment concerned—including installation costs, change management costs, maintenance, upgrades, virtualization, service or help desk costs, and disposal costs—arriving at an accurate TCO can be challenging. In addition, it is impossible to optimize your infrastructure investments if you don’t know what assets you have and how they are utilized to support critical business services.

**Dependency**
With IT enabling your global business operations to function on a 24x7, follow-the-sun service policy, IT infrastructure is too important to be left unmanaged. ITAM will play a crucial role in helping IT add value to your enterprise growth strategy, going beyond providing mere utility value. Understanding all of the asset upstream and downstream relationships is critical to dealing with the impact of change effectively across heterogeneous infrastructures.

**Hardware replacement**
The pressure to stay competitive and the fast pace of change in both software and hardware have prompted organizations to update IT hardware on a regular basis to process larger, more complicated software. Hardware is now replaced every year or two, as against once every five years, with the maximum life of the equipment hardly crossing a three-year period.

**Tax efficiencies**
Tax liabilities on IT assets exist in some countries. Therefore, it naturally follows that efficient management of all assets is important, because it will produce significant savings over time.

A synopsis on how an IT asset management solution can help

The path to sustainable market leadership demands that you seek savings and efficiency gains without compromising on regulatory compliance in managing your IT assets. Given these dynamics, a quality asset management system should include asset-tracking capabilities to help you plan, manage, dispose, and replace equipment effectively. But asset management is much more than this. A strong asset management solution must have capabilities in contract management, license compliance, and IT financial management.
Earlier, the value of purchased assets used to be written off at the end of their life. Today, because hardware is replaced at a faster rate, the equipment reaching end of life still has significant value. But to be able to sell the asset, you first need to locate it and establish its present value, which is usually set according to processor speed and memory. Besides, the ability to control the flow of software throughout an organization can be a difficult task. Consistent best practices need to be in place to make sure that compliance can be met and maintained on an ongoing basis.

In case of leased equipment, the failure to return the equipment at the end of the agreed lease period attracts substantial penalty charges. Here, the challenge is to quickly locate equipment that has been cascaded within your organization.

No matter which procurement route you choose—purchasing or leasing assets—effective ITAM helps enhance cost efficiency.

Most businesses log the first user of the equipment but fail to track the changes that occur during the life of the equipment. These changes include installation and removal of software, addition of memory or a larger hard disk, or re-assignment of the physical asset to another user. As a consequence, the asset is “lost” or may require the acquisition of additional software licenses. This makes ongoing asset tracking a critical feature of a quality asset management system.

Added to this, the linking of contract information, such as leasing/replacement dates, insurance contracts, and maintenance agreements, is valuable ITAM because it provides true historical costs associated with all items.

To enable clarity on the decision to purchase or lease, ITAM also enables the asset manager to perform lease versus buy analysis, based on usability metrics. Consider that while lease rates may look attractive in the first year, the TCO can exceed actual purchase costs. Besides, those same rates may not look as attractive in three or four years, because you will be paying for what is likely to be obsolete technology.

Integration is another key aspect of an ITAM solution. A quality ITAM solution will link with other electronic data sources, encompass the complete asset lifecycle, and enable e-business opportunities. The use of a procurement system is also useful in integrating information and speeding up the procurement cycle.

In a nutshell, building a discipline and culture around ITAM can result in an organization’s ability to accomplish the following:

• Introduce virtualization and maintain compliance
• Manage the TCO of a business service
• Maintain a competitive edge
• Enhance operational productivity
• Implement consistent and repeatable processes
• Reduce costs, specifically costs related to change
• Manage asset utilization effectively and release capital back into the organization
• Improve bottom-line profitability
• Increase service-level agreements (SLAs) and, as a result, customer satisfaction
• Manage IT in financial terms and accountability by charging back for utilization of services
IT asset management defined

Inventory discovery—a vital component of IT asset management

Inventory discovery is broadly classified as physical and automated. For more accurate findings, using both these methods is recommended:

**Physical and virtual inventory discovery**

Equipment can be discovered through physical audits or by using existing information to help reconcile the asset management database.

Consider this example: Assets are usually allocated to a member of staff. To check whether staff records are accurate, reconcile them with HR records or, even better, against payroll to confirm all current staff. Where staff has left the organization, there needs to be an amendment to the data on the asset repository and, more importantly, a process in place to trace any equipment allocated to a former employee.

**Automated inventory discovery**

The best approach for tracking IT assets is through an automated inventory discovery product that uses a combination of agent-less and agent-based capabilities. Combining different discovery techniques enables a greater number of assets to be discovered and tracked over their lifecycles—quickly and reliably over time. Ping, reading of Dynamic Host Configuration Protocol and router Address Resolution Protocol caches, and other standard methods can be used to achieve this goal.

The other decisive factors of an effective automated inventory discovery product are:

- Should provide high-quality data for a more accurate presentation of results
- Should be able to monitor the network, without straining the network with ongoing scanning operations, to discover assets assigned to mobile users or cascaded within the organization
- Should track software utilization because this information can be used to optimize the cost of software licenses
- Should be able to track both physical and virtual assets
- Should have hardware recognition capabilities, with data provided in the same format across all platforms to be able to normalize data wherever possible
- Should have detailed software recognition capabilities to compare discovered data with contracts stored in the asset management system

HP offers Discovery and Dependency Mapping Inventory (DDMI) software to support automated inventory discovery. The DDMI software combines agent-less inventory of the IP environment with agent-based hardware and software inventory and software utilization to enhance data accuracy, as dictated by best practice guidelines. It employs hardware and software recognition along with researched, accurate data collection mechanisms to make sure that the data it collects is of high quality. The DDMI software also provides out-of-the-box integration with HP Asset Manager software.

Though automation is key to reducing the cost of management and tracking, it cannot be solely relied on as it has its limitations. Auto discovery can neither find assets that are not connected to the network, nor can it identify true “ownership” or “entitlement” of the assets not discovered.
Clarifying what does not constitute IT asset management

The first step to explaining ITAM is to spell out what it is not. Many companies assume that they have asset management systems in place, simply because they have any or all of the following:

**A discovery tool**
Most organizations that have the ability to discover physical assets believe they have an asset management solution in place. What they fail to understand is that asset management is not just discovery, but also the tracking of the physical, financial, and contractual information about the asset as it changes throughout its entire lifecycle. A discovery tool cannot do any of this.

**Physical inventory database**
This is highly accurate, but time sensitive. As soon as the inventory data is recorded, it is potentially outdated due to moves, adds, and changes that are constantly taking place in the infrastructure. In addition, typical physical inventories focus only on hardware and software configuration information.

In most cases, organizations do not include the research necessary to tie financial and contract information to the asset with this method. The need for physical inventories is usually driven by an event such as a “true up” for lease or insurance purposes, or a critical event such as an acquisition, refresh, or mass upgrade.

**Assets spreadsheets**
Asset spreadsheets are pervasive throughout many enterprises at the business-unit level. They are usually used to track assets for getting some transparency into budgeting, but also for security or intellectual property purposes. Because the spreadsheets are created and maintained by each individual business unit, there is a lack of discipline and standardization in formatting and naming conventions for the fields being tracked. This makes it virtually impossible to gain an enterprise view in any consistent form.

**Fixed asset systems**
Most financial professionals prefer the fixed asset system as the system of record, because it relates to book and tax implications. It is of little help, though, when it comes to the day-to-day operations of IT or to gain a view into the asset’s TCO. It does not factor in costs associated with the asset during its service life, involving install, move, add, and change processes (often referred to by the industry term IMAC). The system only records acquisition and disposal costs, which almost never account for more than 25 percent of the asset’s TCO.

Clearly, the fixed asset system cannot be used as the system of record for ITAM. A best practice is to integrate the IT repository with fixed asset systems to enable accuracy throughout the equipment lifecycle and support audits, such as Sarbanes-Oxley (SOX) compliance audits. Ideally, the asset management system should actually create and update fixed assets, based on important events, such as acquisition and disposal. In addition, the asset management database should be used as a subledger of information, since the entire configuration is tracked against the high-level, quantity-based solution of the fixed assets register.
IT asset management fundamentals

Now that the false assumptions about ITAM have been cleared, the next step is to define what it comprises:

A holistic asset management discipline
Asset management is the integration of the physical, financial, and contractual attributes of software and hardware to enable the delivery of cost-efficient, timely business services. As a holistic process, it includes the management of the asset’s identifiers, components, support and warranty dates, costs, contract associations, and all events associated with the asset.

Most importantly, asset management is a discipline that enables the financial management of IT assets, providing cost-effective stewardship of IT assets and the resources used in providing IT services. To implement a sound asset management system, tools must be aligned to processes that are event oriented and traceable. Also, cultural and political shifts must take place within the organization. To put it simply, without an asset management discipline, asset management accuracy cannot exist, and the ability to form a configuration management database (CMDB) cannot be established. Organizations must ask themselves, “If I do not know what assets I have, how can I possibly optimize my IT spend?”

An asset measurement system
Asset management is a powerful measurement system that provides functions ranging from standardization and budgeting to return on investment (ROI) analysis. A metric focus is vital for any asset management initiative, because, without a baseline for forming your asset repository, it is nearly impossible to relate the underlining assets to the critical business services that are being delivered.

A dynamic assets database
The asset management repository holds all relevant asset information. This includes:
- User details
- Location
- Asset type
- Model and serial numbers
- Purchase and leasing costs
- Purchase and leasing information
- Termination or replacement date
- Maintenance, repair, change, and upgrade information
- History

ITAM is not just about storing data though. It also extends to functionalities such as:
- Deploying the stored data successfully to operations and synchronizing tasks
- Automating procedures, which is vital in the coordination of large-scale projects
- Empowering operators in their daily tasks
- Reducing the risk of double entries and human error by collecting data throughout operational processes

The ultimate goal is that each employee has the relevant information in the most appropriate format, at the right time. Once the data is captured, the information can be used for management reporting, financial reporting, auditing, and planning purposes. Data can be linked between systems, usually using a single source of data, rather than unnecessary duplication of the same information in multiple places.

The asset management lifecycle
The asset management lifecycle covers the period from initial request for an item through procurement, delivery, stocking, deployment, monitoring, support, installation (as well as all moves, adds, or changes in location), upgrades, reuse, termination, disposal, and replacement.

The wide-ranging factors under asset management have been classified using a simple, three-stage format. This is to help you understand and manage with ease the best practice methodology in asset management. The critical aspects of the cycle, from a data accuracy perspective, include request and procurement at the front end of the cycle and disposal at the back end. The asset changes that take place fall in between.

Figure 3: The asset management lifecycle
The complete asset management lifecycle spans from request and procurement to disposal or reallocation.
A best practice is that large organizations should appoint an asset manager with direct access to the management team to be able to implement effectively the guidelines for realizing a sound asset management system.

Stage 1: Asset request and procurement

This stage includes every aspect of acquiring an asset, from initial request and selection to arrival and training the user to begin operating the IT-related equipment. The two broad processes in this stage involve user management and the approval process. The key elements of user management are as follows:

**User requests**
The user requests an item through an approved person, group, or e-procurement system. The request could be submitted through a service catalog or a Web-based request solution. The request is then subjected to best practice approval workflows to enable control and accountability for spending and standards. At any stage of the approval process, the user should be able to find out the actual status of the request.

The ITAM framework for standardization recommends that you limit the choice, for example, to just three types of equipment. This would mean that the maintenance staff would only need to keep parts and gain expertise on three machines every year. Each type of machine should have a standard specification that is defined in the product catalog from which users select their items to enable a consistent office environment, lower costs, decrease complexity of the systems, and lower demands on the help desk.

**Package or bundled**
When a user makes a request, all associated standard equipment should also be included. For example, a desktop PC would include a screen, mouse, keyboard, disk drive, CD-ROM, and mouse mat, as well as standardized software packages that are necessary for the user.

**Software request**
The software requirement should be specified at the time of the request. Often this can be purchased at a discounted rate as part of the deal. Also, depending on preference, software is sometimes loaded by the supplier prior to delivery or may be part of the requested “bundle” or standard software image, based on the user’s role. These tracking mechanisms and standard bundles also help control TCO and supportability.

**Receiver of the request**
A best practice is that the receiver of a request for new equipment should not be an individual, but a group or team of people, to provide cover when a person is out of the office for any reason.

The approval process involves the following considerations:

**Budget**
It is important to closely monitor the budget. Failure to do so is likely to have serious consequences for approvers and ultimately the organization, due to increased TCO and supportability.
Avoiding delay
The approval process is often the cause of delays in acquiring new equipment. If the approver is a single person within an organization, delays can occur because that person has not been able to consider the case. To avoid delay, an automatic referral of the request for approval should be sent to a deputy or more senior approver. This can be set up as part of the procurement system. If it is a manual system, a copy of the request for approval can be sent to the approvers. Also, the procurement team should monitor all requests through regular reports on turnaround time. Areas or individuals causing delays should be reviewed, and solutions to the problems should be identified and implemented.

Stock
Effective asset management processes allow the approver to check whether a requested item is actually available, avoiding unnecessary purchases. If not, there must be a checkpoint within the change management process to make sure the equipment on order is compatible with the policies of the enterprise.

One should also check with the change management control board to verify that the incoming order will not be affected by a near-term strategic change within the organization.

New hires
To relieve the pressure on the procurement system, a number of necessary overheads should be associated and approved whenever a new hire is approved. For example, approval for a new hire should include a desk, chair, office location, and PC. The Human Resources (HR) department should advise procurement in respect to the new PC. This could mean that the new PC would be assigned to an existing employee and the used PC cascaded to the new employee.

Approval denied
When approval is denied, this decision must be quickly communicated to both the requester and the procurement team.
**Procurement process**
The definition of the procurement process for ITAM purposes is the process by which an organization plans and then manages the procurement process. This includes receiving a legitimate request and approval for goods and services (including standards, definitions, and supplier identification), and discounting targets and policies under negotiated discounts and contracts. Ultimately, the goal of the procurement process is to enable the best price for the best product and service available to meet the organization's needs, while providing full visibility to surplus.

**Order placement**
The order is normally placed with the approved supplier. There are likely to be a number of approved suppliers, usually one for each type of product. The service aspect will include the preferred arrangements for delivery and sometimes installation of the equipment. A best practice to avoid delays in delivery is to provide advance notice of expectations on delivery schedules. Delays can further be avoided by putting in place an e-procurement system that streamlines the processes and by engaging in e-business transactions over the Internet.

**Communication**
It is important to verify that equipment is tracked from the time the order is placed until it is disposed of by the organization.

Here are the relevant roles of each participant in the process:

- **Finance**: To expect the invoice and manage the payment process
- **Asset manager**: To expect delivery and verify that the equipment is logged either upon delivery or before releasing it to the user
- **IT technician**: To schedule installation and tag the asset with a unique asset-tag identifier as part of the “goods receiving process.” This, along with the asset’s serial number, should remain with the asset throughout its lifecycle and be the primary linkage to the fixed asset system.
- **Training**: To schedule training, if required
- **Security**: To be aware of the impending delivery, verify that it meets the description and quantity detailed on the delivery note, and transport the equipment to the appropriate place

A quality procurement system and asset management system automates these processes, provides the asset tags, and monitors the use and functionality of each asset throughout its lifecycle.

**Allocation to user**
An asset management system provides the warehouse manager, who receives new assets, with the ability to reconcile received goods with purchase orders and original requests. This is referred to as procurement’s three-way match.

It is a good practice for the receiver to assign a unique asset number—allocated by the asset management software solution—to the item on receipt. Sometimes asset numbers are attached by the supplier by special arrangement prior to delivery.

The IT technician is responsible for installing IT equipment for the user and making sure that the equipment is fully configured and ready for use. The asset repository must be correct prior to allocating any equipment. The asset entry should also include all software installed. As the information about the asset will never be more accurate than it is at this stage, a best practice is that the asset manager determines the accuracy of the asset as it enters the CMDB to enable a clean start.

**Equipment received by user**
After delivery, the user is shown how to gain access to the network and programs. Additional training can be arranged through the training coordinator.

A best practice is that the user sign an acceptance form for the equipment once it is delivered. This form should be recorded or kept in the user’s personal HR record, so that the equipment can be duly retrieved when the individual leaves the organization. Also, processes should be in place to prevent intellectual property from leaving the enterprise with an individual, and to wipe company or departmental information before cascading or disposing the asset.

**Return of equipment**
Delivered equipment that is faulty or that does not match the purchase order should be returned to the supplier and should not be added to the asset register or paid for.
Stage 2: Asset change management process

This stage assimilates every change that occurs during the lifetime of an asset, referred to as IMAC. Because every change represents a cost to the organization, the asset management helps determine if the change is cost effective or business effective. The different concerns in this stage include:

**When changes occur**
Changes will occur when they are allowed to by the organization in the majority of cases, but certainly not always. Though it is extremely unlikely that rules and restrictions will be powerful enough to verify that every user follows them, allowing unrestricted change to occur can divert key staff and finances away from business development.

**Change situations**
IMAC processes take place under a formal change management process, as defined by the Information Technology Infrastructure Library (ITIL), for larger projects such as a refresh, or as a solution to an incident.

The goals of the IMAC process are:
• To enable control and accountability for updating a server or end-user environment
• To preplan a change event or “just-in-time” point service
• To reduce the amount of “shadow support” within the enterprise, which can allow rogue activity
• To build a database that will help define trends to repairs as a feeder to the technical review process for creating catalogs of approved products
Cascading
Cascading refers to the movement of PCs within an organization. The latest-specification PC is allocated at the top of the organization, and receivers pass their PCs to the next in line. This continues until, at the lower end of the staff structure, one of the cascaded PCs is at the end of its planned life and is terminated.

The positive aspect of cascading equipment is that you can enable the person with the greatest need for speed and memory to get the best equipment in the organization, so that the organization makes the best use of a new machine. This is cost effective as well as business effective.

Consider the alternatives:
• **Give a new high-end PC to the latest recruit**: This would be a waste of a high-end resource, if the latest recruit only requires a low-end PC.
• **Provide junior staff with low-end PCs**: The procurement of low-end PCs is a poor investment, since the pace of change will render these machines unusable within their lifespan, requiring costly upgrades or replacements.

It must also be recognized that the cost attached to each cascade is significant, since it involves a number of actions usually performed by IT staff.

The best practice is therefore to split between the two options—to cascade or not—and limits cascading to situations where business benefits suggest that the financial and resource costs are justified. Here, depreciation of equipment must also be considered. If equipment is terminated within its planned lifespan, the cost is likely to be high.

**Process accessibility**
To enable staff members to be aware of the process and follow an agreed procedure, it is necessary to publish the processes for the entire asset management lifecycle. Employee self-service solutions allow all employees to check the processes from their desktops. To highlight their responsibilities, staff members must be asked to sign an acceptance form where their responsibilities are clearly stated when they receive a new item.

**Record all changes in the asset register**
All changes must be recorded in the asset register before releasing the equipment. Because staff members tend to feel that the role they are performing is more important than the data-recording element, the best way of facilitating changes to the asset register is to allocate responsibility for the change to the allocator. Throughout each process, role-based accountability is critical to the success of ITAM.
**Policy**

There should be a clear policy on what changes are acceptable and what action will be taken if the organization’s procedures are not followed. Because consequences are difficult to define holistically due to differences in cultural and political landscapes, it is important that the core team, with backing from the key stakeholder, clearly communicates ramifications. The ITAM marketing plan should focus on the value to role-based staff, key stakeholders, peer sponsors, and end users.

**Service desk**

The service desk, often known as the help desk, has an important role to play in the management of IT assets. Its primary role is to act as the point of contact for problem management, incident management, and service-level management. It can also act as an ongoing audit system. Whenever a call is received, the staff should check the user’s name, PC asset number, and location with the information shown on the screen. A quality, automated service desk system, such as HP Service Manager, provides a full range of integrated options, making help desk functions efficient and easily managed. This knowledge is critical to meet expected SLAs and operational-level agreements, and increase customer satisfaction.

**Accuracy of data**

Accurate data in asset management means possessing knowledge on what equipment you have, where it is, how well it is working, how much it is costing you, and whether it is doing for the business what you intended it to do. The accuracy of this data, or lack thereof, will play an important role in the key stakeholder’s, peer sponsor’s, and end user’s perception of the success of the ITAM program.

A best practice is to have regular audits of the database and work locations. While physical or spot audits identify unused or discarded equipment, the use of an automated inventory discovery tool, such as HP DDMI, helps locate equipment that has been moved or swapped and has not been recorded in the asset repository. The core team must adopt a three-way match process that matches the accuracy of a scan, spot audits, and the repository.

**Quality assurance**

There should always be quality assurance checks on any work area, whether it is a service area or management-monitoring scheme. A regular review of systems and procedures should be undertaken. These reviews should recommend improvements wherever necessary.
Legal requirements
Legal requirements for an organization exist particularly in the areas of software licenses and contractual issues. The use of all major business systems relies on the payment for these licenses and legal contracts with suppliers.

Contract management
For the purpose of asset management, it is also important to be aware of contract information and defined termination or replacement dates of every IT-related item. The discipline and process around contract management is critical in enabling full lifecycle management. Contract management aims to enable understanding of contract legalities, control and leverage the terms and conditions on the organization’s behalf, and manage the costs, condition, warranty, maintenance, and utilization of assets.

Planned maintenance of buildings, plants, and equipment is considered essential to successfully building operations, particularly in respect to avoiding service breakdowns and reducing reactive maintenance or emergency repairs. Maintenance contracts, along with insurance and lease contracts, come under the purview of contract management.

Software asset management
Software asset management (SAM) is the process by which an organization plans and manages software licenses, software assets, and entitlements to enable software vendor management and software compliancy. SAM aims to facilitate control and accountability for spending at the department level, proper software entitlement, software license compliancy, and contracts, based on actual “need.” All aspects of inventory management are also involved.

Operational cost control
Operational costs can be easily monitored and reported on, provided the appropriate software tools are in place. It is prudent to maintain a good ongoing view of the operational costs so that trends can be identified as they occur, rather than at the end of a period, when it is often too late to act.

Financial and allocation management
Financial and allocation management are different disciplines and processes but are closely related. ITAM plays an important role in positioning the enterprise to create a vehicle for chargebacks or allocations.

Financial management is the process used to holistically manage the financial aspects of an organization’s real and personal property assets from a cost, depreciation, and budgeting perspective. It enables expense control, accountability, and auditability for financial asset tracking as it relates to compliance and the general ledger/fixed asset view.

Allocation management is the process used to plan and manage cost allocations across departments for asset procurement, maintenance, and related services. It enables control and accountability for spending at the organization and department levels, based on actual “need.” It also helps reduce waste and increase efficiencies in spending and usage assets and services.
Stage 3: Asset disposal and replacement

Termination or retirement management involves planning and managing the execution of retiring assets from the enterprise. It enables control and accountability for the retirement of organization-owned assets, guided by both financial and physical goals.

Termination and disposal
Unused assets are difficult to track because they are not connected to the network. So, to enable effective asset tracking and avoid surplus, any increase in the asset stock should be countered by an exit or retirement linked to the acquisition. In simple terms, new equipment in should lead to the old equipment out.

The disposal process must adhere to environmental disposal norms of the concerned country. A decision also needs to be made about whether a replacement item needs to be ordered. As mentioned earlier, the replacement cycle has moved from a five-year norm to an upper limit of two years for more “progressive” companies, and a general upper limit of three years.

The termination of equipment can happen at any point in the use of an item, especially where damage, loss, or theft is the cause. Another important termination function is the action to be taken on end-of-lease contracts. Penalty charges for late return of equipment can amount to considerable sums and should be avoided.

The core ITAM team defines the processes and methods of disposal, where the common disposal types include:

- Lease return, if the asset is leased
- Employee sale, which is not considered a best practice, as the employee-buyer may continue to lean on internal support for the life of the asset, once acquired
- Donations, not necessarily for any tax benefit, but as a philanthropic act
- Cannibalism, where the components are extracted for the parts inventory after considering costs
- Scrap, where disposal is in adherence to company security processes to mitigate any environmental protection risks, including those that could lead to fines

A best practice is that a third party is contracted in the case of employee sale, donations, or scrap disposal to make sure professional data cleanup or disk wiping occurs and governance measures are maintained. The best practice process for terminating assets can be automated using HP software tools to enable a faster, more effective operation.

Allocating responsibility
There are two levels of responsibility: overall responsibility and responsibility for actions to be taken. Each key action must be assigned to a member of staff to clearly define responsibility. Responsibility for an action does not necessarily mean that the person given the responsibility actually carries out the action.

Suitability for role
Often roles are determined according to job title. Suitability for the roles, in terms of the most trained or qualified, can sometimes be disregarded in favor of availability.

Training
Each staff member should be trained to understand how to carry out the assigned responsibility, as well as where his or her responsibilities fit into the overall process.

Process and procedural documentation
It is essential that staff has easy access to documentation that shows what, how, and when actions should be taken and by whom. Documentation, including process maps, should be easy to understand.

Replacement
A best practice is that replacement should be planned and should not happen simply as a consequence of an item suddenly ceasing to function.

Return of equipment
Existing staff, during re-issue, should return equipment to stock or send it for termination. This equipment should be removed at the time of issuing the new equipment and a return form completed, with a copy sent to HR to amend their records. This action can be automated through the use of HP systems solutions, and it is possible to link the asset management system to the HR system. It is usually the person’s manager who is asked to be responsible for the return of equipment, which might be re-allocated to a new employee.
Where no IT asset management system exists
The absence of an asset management system can have the following ramifications:

Costs
TCO is difficult to calculate, so the true cost of owning an asset is often not known, because TCO is required in order to ascertain which assets provide the best value and which ones should be avoided in future. Organizations without an asset management system fare poorly in comparing assets for this purpose. This results in costs easily spiraling out of control.

This apart, even the other consequences of not having an asset management have cost disadvantages attached.

Wasted resources
The organization can face difficulties whenever it wants to implement any new process. Resources are dedicated to identify the location and ownership of missing assets, and to update chaotic databases.

Lack of order
Organizations are reluctant to “write off” missing equipment because they believe it may turn up at some point. There is an embarrassment factor because they do not wish to admit that their records are not accurate, or that their costs in respect to assets are not in order. This situation arises due to pressure from within the organization to acquire new equipment quickly, whenever required, without being concerned about removing old or end-of-use equipment.

Inaccuracy
Accurate data should be held and maintained. This applies to any items that are deemed to be assets of the company, although IT assets tend to be the cause of the highest anxiety, because the equipment is often portable and costly.

Business inefficiency
Typically, organizations often do not know:

• What assets they own
• Where the assets are
• Who is using them
• How well each asset is working
• If each asset is contributing to the business goals as expected
• Termination dates
• Contract terms and conditions
• What software licenses are on PCs
• What software is in use
• If software license compliance is adhered to
• Warranty details
• Hardware and software upgrades that are unrecorded
• TCO
Evolving an IT asset management system

Levels of maturity

HP believes that asset management is an evolutionary process. An organization cannot achieve the highest level of maturity until a number of processes are created, tested, and implemented. Adopting a planned, phased approach to ITAM best practice improvement can make the transition more predictable and help optimize the outcome.

To understand where you are on the road to ITAM best practice maturity, it is necessary to undertake an assessment—ideally a self-assessment, overseen by a specialist consultant such as HP. Once the assessment establishes which stage you are in, acceptance of the situation leads to a faster path in determining your desired state and the next steps to get there.

Each of the four stages of evolution is characterized by distinct factors, as follows:

**Stage 1: Chaos**
- Significant asset management issues
- Some areas of business process in a chaotic state
- The level of management and much below the organization’s desired state
- Maverick buying
- Inability to measure risk
- Inability to discover or track assets (physical or virtual)

**Stage 2: Reactive**
- Implements automation through enterprise discovery tools
- Takes the first step toward matching discovered asset data with basic portfolio data within the asset repository
- Implements user request management catalogs and tools to help IT gain control over standards
- Identifies the users’ options for standardization
- Implements expense attribution
- Enforces standards
- Enables effective contract management

**Stage 3: Proactive**
- Integrates contract and financial information with the asset repository for full transparency into that aspect of the asset’s life
- Implements more complex reporting and acquires the ability to consider managing chargebacks or allocations to the business units
- Implements automated request management
- Articulates IT value
- Lack of reconciliation of asset request to receipt exists

**Stage 4: Optimization**
- Attains full transparency of the entire lifecycle, including all contract and financial implications, as well as the asset’s relationship with service management
- Optimizes business intelligence to transform the IT infrastructure into what HP describes as “optimal IT”
- Identifies opportunities to standardize
- Aligns IT with business objectives
- Ascertains service value
- Identifies breaks in processes

Periodic assessment can help you analyze where you are against where you want to be. This will determine the next steps and a practical roadmap for moving forward, using process development and software tools.

Getting started—the key initiatives

To lay the groundwork for a sound ITAM initiative, following some foundational philosophies help you make a good start. These principles apply not only to new initiatives, but also as a checklist for those “restarts” that are common around ITAM projects:

- Obtain executive sponsorship
- Obtain peer support
- Appoint an IT asset manager
- Create, approve, and start to implement a strategic implementation plan
- Determine ITAM processes
- Select a software management tool and autodiscovery tool
- Implement all of the above
- Enable ongoing quality assurance
Benchmarking your performance

The benchmark is a record of factual cost and position at a given point in time, and enables a set of comparisons for past and future reference and assessment. The challenge is often in figuring out how to know the status of your asset management initiative in a business environment, at any given point. The solution lies in:

**Monitoring**
Along with an automated inventory discovery tool, a physical audit carried out on a periodic basis helps identify and record equipment not linked to the network, especially equipment no longer in use. In addition, HP recommends implementing a three-way match scenario that utilizes spot walk-around audits and a process that reconciles the spot audit to the repository and the automated scan.

**Measuring**
Key performance indicators (KPIs), commonly obtained and monitored during the course of management reporting, can be critical success factors. KPIs are factors identified by organizations as being significant measurements of their business performance. These are regularly monitored and reported at a management-team or board level, not only as a means of measuring performance, but also a means to detect early warnings of market changes.

Based on the measurements, SLAs for infrastructure management services and processes can be defined. These SLAs can be used to specify asset management services to internal and external customers.

**Assessing**
This provides the opportunity to compare your company against industry best practices and assess your current status across a range of functions against average maturity levels in the industry.

A facilitated self-assessment workshop can help you review your ITAM processes against the best practices identified by HP, based on more than a thousand implementations of asset management projects at enterprise IT sites.

Using a collaborative approach based on group discussions with managers and users, HP establishes an environment that fosters teamwork and open communications. The assessment uses the HP Asset Management Process Framework. The framework was developed and is based on industry best practices, including ITIL standards for software asset management.

On completion, participants gain an excellent understanding of ITAM goals, best practices, and benefits, as well as the ability to use the framework as a model to create action plans.

**Analyzing decision and actions**
Processes must be in place to help you determine how well or badly you are performing as an organization with respect to managing assets—as a direct result of the decisions that the organization has made and the actions it has initiated.

Further, business intelligence can help in determining future decisions and actions. In simple words, it is the ability to use current data and run “what if” scenarios. Here, relational data helps determine the best use of resources as well as the future of those resources.
Creating a business case
This helps justify your case when you have made decisions favoring significant investments. What is required here is the input of accurate financial information and the ability to accurately analyze the data and compare this against best practices. HP has developed several financial analysis models to assist organizations in developing the proper business case for either initiating or expanding an asset management project.

A useful tool that facilitates this process is the ROI calculator, which makes use of financial analysis to evaluate a given project. Financial analysis is performed by calculating the costs and benefits of the project, and by using the concept of time value of money.

Conclusion
While many CIOs lack credibility with their organizational peers and sometimes even with those to whom they report, these relationships can be improved if CIOs credibly answer four asset-related questions that are critical to running a successful business. It goes a long way to build credibility if IT is able to communicate to others what assets are owned by IT; what the return is on those assets and how that return is being improved; how IT’s investments compare with those of competitors; and lastly, how IT is managing the risks associated with its assets. The only way to get there is to have the right technology, right people, and right processes working together to achieve that level of transparency, benchmarking, and governance. HP has long been and continues to be a leading provider in both the technology and best practices necessary to provide the CIO with the tools and data needed to create and communicate amazing results.

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