Ivanti IT and Software Asset Management Attainment Model

The Ivanti IT Asset Management (ITAM) and Software Asset Management (SAM) Attainment Model is a suggested roadmap to help ITAM and SAM managers chart a direction for their programs. For those that already have ITAM in place, but may be stuck in the phase of just responding to software audits and not evolving beyond that, this attainment model could be used as a roadmap to define the next steps and broaden the usage of asset-related data within the organization to help solve problems in other IT domains.

Organizations frequently struggle to articulate the business case for implementing asset management. This attainment model helps in that effort by identifying problems to be solved and their priority in order to evolve successfully to the next attainment level. Progressing from level to level requires knowing what should be accomplished first to achieve success at the next stage. Occasionally, an organization can skip a step, but the overall outcome will be more successful if progression occurs.

A Reference Manual of Sorts

An IT asset management attainment model is similar to an owner's manual for a car. Yes, you can design and run an ITAM program, but if you want to be efficient about your time and know more about how to improve and provide proactive business value, an attainment model is a great reference. It can help you chart a course for the program's direction and can be shared with other IT domains. This creates a common understanding about goals and how to achieve them. When you're able to determine a direction to head in, you have a roadmap for next steps. Having a charted direction is necessary to gain and maintain stakeholder support.

To provide its customers with a direction, Ivanti has designed an attainment model outlining a strategic ITAM roadmap that organizations could potentially follow.

This roadmap might not apply to *all* organizations. It is intended to help organizations that have dedicated the investment in an ITAM/SAM team to move out of a reactive mode that's focused on responding to a software vendor audit, and into a mode of solving more complex problems to gain a competitive advantage. Embarking on an ITAM program is typically in response to a specific problem, like a software audit. By having a starting point for the

discussion, the correct teams can be brought to the table. Given that there is a well-documented skills shortage for qualified ITAM/SAM professionals*, most companies are finding success by training internal staff to fulfill the open roles. There is no magic headcount needed to staff a program, but it tends to be higher in early stages of program implementation so have stakeholder support is essential if headcount might need to be shared.

About the Model

The ITAM attainment model is not intended as a definitive roadmap that applies to every organization. Nuances, such as having many shared use client devices, or implementing an employee-wide BYOD program. Organizations in highly regulated industries also have nuances because their focus on data protection and customer privacy is a primary driver for any IT function.

With this in mind, recognize that the characteristics at each level aren't set in stone and will evolve to keep pace with technology. When disruptive technologies are released, such as data center software containers, they tend to exhibit a "hockey stick" adoption curve that will impact the model. When new ways of using IT become entrenched, certain attributes will shift lower in the attainment model or may even become obsolete.

One of the challenges Ivanti encountered when creating this model was related to the role in an organization that would identify the next steps for the ITAM/SAM program. Such programs can be aligned to IT operations, and they are just as frequently aligned to IT sourcing, procurement, vendor, and contract management. This creates a conundrum because it would be difficult to identify the steps for every role that would potentially be interested in ITAM/SAM. Consequently, we attempted to do this at a high level. What's more, this model won't be applicable to enterprises of all sizes. Smaller organizations may not have the headcount or funds to invest in advancing their ITAM/SAM program. Other companies may determine that they don't want to progress beyond a certain level because they have other urgent problems to solve. As with a map, there are alternate routes an organization could take.

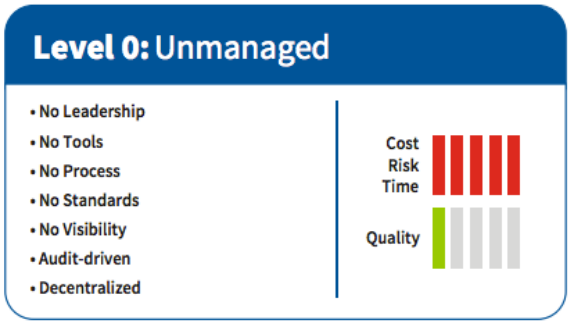
To gain support from senior management, you need to understand what their concerns are. IT leaders are challenged daily to balance strategic and tactical problems. At each of the levels, the attainment model demonstrates the impact on costs, timeframes, quality of service, and risk. Risk could encompass both audit and compliance. When senior management recognizes the impact of low levels of attainment, it's easier to demonstrate the business value.

The attainment model begins by looking at the components of an effective ITAM/SAM discipline: governance, policies, processes, people, metrics, automation, and alignment with business direction.

The Attainment Model

Level 0: Unmanaged

When it comes to asset management, it's non-existent at the entry level. We don't spend a lot of time characterizing this level because ITAM is not happening in any systematic way.



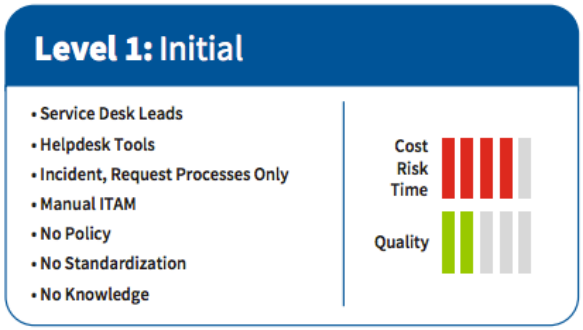
There are many reasons why an organization hasn't implemented ITAM. For example, it's possible that the business may be too small, is highly distributed, doesn't recognize ITAM as a priority when there are other problems with higher visibility, doesn't have sufficient staff, or isn't in growth mode. It's difficult for organizations to develop an IT roadmap or direction at this level because they typically don't have enough resources, staff, or funding.

Software is usually purchased and installed on new hardware by the supplier. Additional apps are purchased as needed, but many cost-sensitive organizations at this level will look for cloud-based apps they don't have to track or secure. Visibility into hardware lifecycles are not managed so they trend toward extremes. Assets may be refreshed frequently because users ask for replacements, since no one is tracking how long they have been in use. Alternately, assets may be in use much longer in some environments since there isn't a formal process for tracking retirement dates. Assets are used until they break or user frustration mounts due to app performance times and limited storage on older models.

At this level, there is no awareness of the risk that potentially heavily virtualized data center software could pose to the organization. The other attributes of an ITAM program, such as governance, process, policy, and metrics, are not considered at this level. As a result, costs and risk are high, timeframes are extended, and service quality is low.

Level 1: Initial

This Initial level is where we witness the majority of Ivanti customers embarking on an ITAM/SAM program. They've recognized problems that need addressing systematically. This awareness may have come about as the result of a software vendor audit, a lost mobile device that contained sensitive data, or any number of reasons.



At the ground-floor in the attainment model, awareness typically begins with client devices. Tracking all users and their associated devices can be difficult when done manually, so spreadsheets or a database are used to help track assets. Since spreadsheets aren't effective workgroup software, one person—usually a help desk technician—must own it, and is responsible for the care and feeding of the data and its accuracy.

Taking control of the asset-tracking process can be difficult when there are no centralized controls or processes. User and IT behavior tends to react to the latest fire or challenge that must be addressed. As result, there is little governance, limited staff, only basic processes and policies, and no metrics in place.

Without clearly defined policies related to software download or evaluation, maintaining a view into what's installed on the endpoints is difficult. It isn't uncommon to find that tools installed for other purposes, such as network or application performance monitoring, are being leveraged to discover what is installed. Since this tool isn't designed for ITAM/SAM, there may be gaps in the data and detail.

At this level, standard device types or applications have not been determined. This makes it difficult to

maintain a spare parts inventory and drives up support costs. When support technicians must be proficient on many device types and applications, it may take longer to resolve requests, and they may require escalation. When a purchase request takes too long to fulfill, users start to complain about extended timeframes or that IT is slow to respond to requests. This leads to low satisfaction levels. Purchasing on demand as requests come in doesn't position an organization to take advantage of volume pricing discounts or favorable payment terms, which keeps costs higher than they need to be.

Except for technology-centric organizations, tracking of data center hardware and software usually isn't on a company's radar, despite such purchases consuming the largest amount of funding. The data center remains separate and distinct from the client side and there is little interest in leveraging processes or tools.

At this level, costs and risks are high, timeframes are extended, and service quality is very low. Essentially, it's difficult for end users to do their jobs effectively when they don't have resources to support them.

Level 2: Managed

The Managed level is what every ITAM/SAM program should strive to achieve in order for the business to have confidence in IT's ability to fulfill its charter. If all of the characteristics aren't documented and profoundly entrenched in IT, the business unit will find that the risks, costs, and timeframes are too high or extended, while service quality is low. When frustration mounts, ITAM/SAM programs are targets for outsourcing after costly audits or security breaches.

Reaching this level requires a significant amount of resources. C-level executives must be fully supportive and patient as lessons are learned, and in some cases, relearned. Investment will be needed in governance, policy, process design, staffing, tools, and metrics. Benefits can be achieved without tools, but an ITAM tool is needed to fully automate many of the manual activities.

At this stage, the first step is to address governance. Without strong governance, moving up level in the attainment model will be nearly impossible. To avoid any misunderstandings about what governance entails, here is Gartner's definition of governance:

IT governance (ITG) is defined as the processes that ensure the effective and efficient use of IT in enabling an organization to achieve its goals. IT demand governance (ITDG—what IT should work on) is the process by which organizations ensure the effective evaluation, selection, prioritization, and funding of competing IT investments; oversee their implementation; and extract (measurable) business benefits. ITDG is a business investment decision-making and oversight process, and it is a business management responsibility. IT supply-side governance (ITSG—how IT should do what it does) is concerned with ensuring that the IT organization operates in an effective, efficient and compliant fashion, and it is primarily a CIO responsibility.

http://www.gartner.com/it-glossary/it-governance/

When senior managers support the program, it's because they recognize the strategic benefits that can be achieved. However, successful programs will continue to market the benefits achieved on a monthly or quarterly basis to senior management and the business. As long as there is an IT infrastructure supporting the business, there is a definitive need for ITAM/SAM.

The next step in a successful program is ensuring there are qualified people to staff it. The headcount might be recruited internally from existing resources in the support team who are already supporting the function or may be recruited externally. Plan at least six months if hiring is external.

At this level, policies must be in place. However, policies are typically just targeted at the behavior of end users—such as informing them about acceptable

corporate practices when it comes to hardware device physical security, software downloads, evaluation copies of software, and other areas. These policies must be applicable to both IT and end users, because IT staff with admin rights need to be informed that they might be creating a risk in the same way end users could. In some organizations, for example in highly regulated industries, it will be easy to create a corporate culture of adhering to policies. Other companies however, such as engineering and IT firms, will never succeed at controlling user behavior.

When designing ITAM/SAM processes, the most effective strategy is to look at existing processes to determine if any best practices exist that can be standardized across the organization. In multi-national firms, standardized processes will be difficult to establish globally due to diversity in suppliers, shipping costs, etc. When reviewing existing processes, they can be evaluated by their position within the asset lifecycle.

There are five stages of an asset's lifecycle:

1) Requisitioning

2) Receiving

3) Deployment

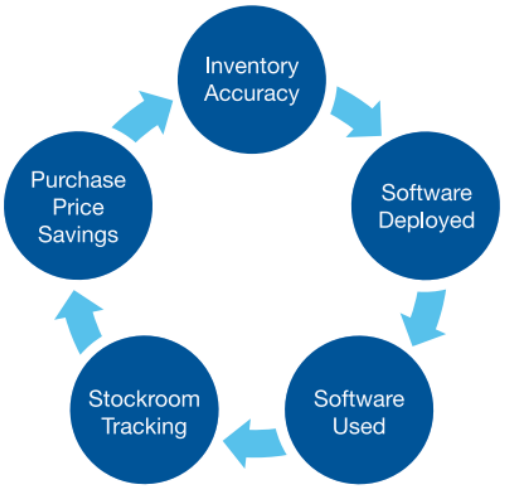
4) Maintenance

5) Retirement/Disposal

The longest part of the lifecycle—where the most change occurs—is the Maintenance stage, because an asset may be used for two, three, five years or longer depending upon what type it is. Enterprise software, which falls within the pace layer definition of systems of record (see Gartner pace layering research), could have a 10+ year lifecycle.

An effective ITAM/SAM program depends heavily upon processes. A program's success is 80% based on process design, efficiency, and adherence. If employees don't adhere to the process, it will be difficult to maintain visibility and data accuracy. A centralized ITAM/SAM program, even if there's decentralized buying against centrally negotiated contracts, is akin to other shared IT services as it will cross all IT domains.

Metrics are essential to every ITAM/SAM program in order to understand how the program is performing and to identify opportunities for continuous improvement. Metrics measure where performance is meeting, exceeding, or failing expectations, and they disclose what areas can be refined. Ideally, a baseline of the environment from the Initial or Unmanaged level will be used to build on with more detailed, problem-centric metrics at the Managed level and subsequent levels. Basic hardware and software metrics that measure time, cost, value of inventory, and other factors will provide visibility into purchasing, deployment, and change management decisions.



Ivanti suggests that users beginning their ITAM/SAM program focus on inventory, time, and cost-specific metrics. These metrics will expose the locations of inefficiencies.

At this level, having the correct tools to automate manual processes and integration to other applications will lead to a comprehensive program. Foundationally, there must be a reliable discovery tool that can discover and run an inventory of every asset attached to the corporate network. This builds the baseline about which assets need to be managed. Historically, organizations only focused on managing assets that ran software. The introduction and widespread adoption of the Internet of Things (IoT) has drastically impacted the definition of an asset. Today, scope should include any asset that can store data, has an IP address, or poses a security risk. This would include any BYOD; public cloud applications; WiFi enabled, locally attached printers; and many others.

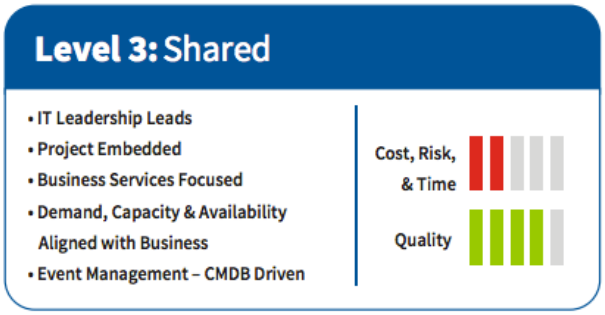
In addition to discovery tools, having an ITAM database that acts as an information hub for financial

and contractual data is a key part of enabling automation. The ITAM database is often integrated with the procurement system first, so purchase order data can be auto-populated into the asset records. Integrations into key suppliers, like software resellers, is also important in order to know what assets have been received. When the data from these three sources are brought together, a company can quickly understand where their deployed and authorized information differs. Alignment with service management can provide visibility into how a vendor is performing against the incident and into problem tickets that are opened and closed.

At this level, costs and risks are visible because they can be forecasted annually. In addition, timeframes are modest and service quality is increasing. The business has confidence in IT and end users feel as if they have the support resources necessary to be effective.

Level 3: Shared

This Shared level is characterized by the ability of ITAM/SAM managers to collaborate effectively with other domains by sharing data through team meetings, executive dashboard reports, tool integration, and other areas. Visibility across IT domains supports higher level objectives that lead to efficiencies that, in turn, enable IT to deliver on its strategic roadmap and transformation efforts.



The advantages at this level are huge. The ongoing investment is typically in additional headcount, which makes it worth attaining. In fact, at this level, costs, risks, and timeframes start to decline, while service quality increases. Many of the earlier reactive problems around governance and policies have been solved. The major focus is on staffing and encouraging communication through effective teamwork. In some organizations, this will require a cultural shift away from thinking domain-specific control—or "hero culture"—to an open approach to information and data sharing. Enabling this type of collaboration at the staff level may require rewriting job descriptions or performance reviews to ensure staff follow senior management's lead.

It may be necessary to update processes and tools as new technologies continue to enter the organization. However, most of the heavy lifting—from a time and cost perspective—should already have been done at the Managed level. At this point the focus is on enabling continuous delivery of business services, regardless of whether the services are running in the cloud or on-premise in software containers located in data center. Security, Service and Support, Business Units, Disaster Recovery, Enterprise Architects, and Strategic Planners are all collaborating to understand each other's challenges, direction, goals, critical success factors, and key performance indicators (KPIs), and to share data across the domains.

Metrics also undergo an evolution at this level. They become service focused, and are based on the ability to better analyze data. Most organizations will have service level agreements in place with their internal customers—for example, the time to fulfill an asset-related request—but the SLAs will align to support increased visibility. This will lead to the creation of vendor performance scorecards as well as SLA's that go outside traditional ITAM/SAM to support disaster recovery and business continuity planning.

From a financial perspective, at this level, organizations will best be able to achieve consistent savings across various IT budgets, both corporate and the business unit. Consistent savings aren't only hard dollars associated with negotiation strategies and purchase price, but extend to management costs for hardware, software, and services that support business outcomes directly. Delivering on this requires having an ITAM/SAM strategy that includes data center, cloud, and hosted assets. With data center representing x% of IT spend, being able to discover all servers, virtual machines, software containers, and the installed software provides much needed visibility. Gartner is forecasting data center spend growth in 2016 to reach $175 billion (see 05 July 2016 G00296930) with 1.6% CAGR, and enterprise

software spend at $332 billion with 6.8% CAGR. Visibility will be essential to cost control.

It's no surprise that enterprise software spend is growing because it's being used to gain technical advantage with business intelligence, data analytics, mobility, technology modernization, security, cloud adoption, and many other drivers. Organizations are looking for more flexibility from their software suppliers. The ability to run software in containers, virtualized or hybrid cloud, or move it among public cloud instances, requires that software not be tied to a server or a geography, providing mobility as needed.

One of the biggest challenges IT faces is how to overcome the perception of being a utility or a budget line item that doesn't enable business outcomes. This viewpoint is gradually eroding as more companies are adopting a digital business strategy.

When the discussion about IT effectiveness is backed by financial details, the tone of the conversation changes quickly. Chargeback and its financial twin, showback, are used to demonstrate to the business how much IT really does cost. The network infrastructure needs to be maintained and updated and application performance monitoring identifies problems proactively to remediate them. Yet the business sees only purchase cost, not the infrastructure that supports IT.

By "showing back" the costs to deliver a service, business units can be more judicious about the SLAs they expect from IT. If costs don't align with expected return, the project must be reevaluated. Cost control can be realized in one report. Chargeback, while not widely implemented, is another mechanism for IT to elevate itself above a utility, especially when the business is looking for IT to enable a new project.

Automation and integration are the hallmarks of this level. All of the different areas in collaboration may be integrating their domain-specific tools into a configuration management database (CMDB) that is owned by service delivery.

At this level, costs can be easily budgeted, risks are expected, timeframes have shortened considerably, and service quality is high. The business has confidence in IT's ability to partner with it and help it deliver on its goals and objectives as a team.

Level 4: Optimized

In the ITAM/SAM attainment model, the Optimized level is the highest level achievable. Organizations have already solved many of the problems that keep IT leaders awake at night. The earlier reactive problems have been solved, so governance and policies are no longer an issue. Staffing won't present challenges because teams are already collaborating. Processes and tools might need to be adapted as new technologies continue to enter the organization, but it shouldn't present problems because the cultural shift in thinking has already occurred at Level 3: Shared.

The one area that continues to evolve throughout the attainment model is metrics. We suggest financial metrics, such as capital expenditures (CAPEX) vs Operating Expenses (OPEX), budget vs. actuals, as a starting point. But in reality, organizations will likely have measurements that are specific to their corporate goals. This attainment level can also reveal discretionary and nondiscretionary IT spending that isn't delivering the expected business outcomes.

At this level, the focus is on alignment of IT financial management supplied by ITAM data to enable various strategic decision-making activities that aren't necessarily ITAM related but support business agility. Business agility is achieved when DevOps, SecOps (Security operations), and ITAMOps are all integrated processes and tools that share data about the environment and its performance in real time. In the best-case scenario, business units don't even realize IT is happening in the background. Achieving this level of agility requires close alignment across business services delivered through a fully operationalized ITAM and ITSM program.

Thanks to all the work accomplished at the earlier stages or levels, an organization that has reached this point is able to have predictable spend. Monthly

meetings between the ITAM manager and the business units ensures there aren't any unplanned events or last-minute requests coming in. ITAM is able to forecast future software and hardware needs, whether leased, purchased, in the cloud, on-premise, or virtual.

If new projects are being rolled out, ITAM has been involved from the planning stages, so contracts, products, and suppliers are already in place. If a reduction in force is expected, ITAM has determined usable life-of-hardware assets to identify remaining residual value or has downgraded maintenance of software that will no longer be used. In EMEA, where software can be resold, ITAM will already know which software is transferable and what its value is.

Along with predictable spend and forecasting is the ability to do real time licensing based upon IT demand. Using either a Bring Your Own Software License (BYOSL) model or software from the cloud provider, IT will have data necessary to look for the most effective platform for the price it is willing to pay, and act on that information. This is especially relevant to global organizations that might have multiple public cloud instances, and are looking for the best price based on geography, privacy laws, or some other factor.

With moving cloud instances and software, real-time licensing enables the organization to achieve savings because IT can see where potential demand might spike or take advantage of discounted cloud pricing wars. Forecasting demand, capacity, and spend requires knowing how the environment is performing against budget targets, actuals, capital expenses, operating expenses, fixed, variable, benchmarks against similar size organizations, and other IT financial metrics. Benchmark data is particularly useful when it can dive to the service or tier level of detail. This helps IT understand if it's being cost effective or not.

Another hallmark of this level is the ability to optimize systematically the entire corporate application portfolio of both cloud and on-premise applications. IT can take advantage of real-time licensing for public cloud applications because demand is tied to changes in the business. Subscription licensing will provide insight into consumption by function being performed (e.g. viewing vs. action) and the organization will be charged accordingly.

At this level, costs and risks are controlled and forecasted monthly, timeframes are now near real-time, and service quality is high. The business and IT are now intertwined with the same objectives.

Summary

Ivanti doesn't expect the ITAM/SAM attainment model to be a static one, nor is it applicable to every organization. Just as technology and business evolves, so too will this model. It is intended to help organizations begin the discussion about what their next steps should be and why. In conjunction with process frameworks, the questions around how to take those steps can be answered. Bear in mind that movement through the attainment model requires dedicated resources and effort to achieve the benefits.

To help organizations determine where they are in the Ivanti ITAM/SAM Attainment Model, Ivanti offers a workshop to help uncover the areas that are operating effectively and that may need refinement.

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*Source: ***http://www.itassetmanagement.net/2013/03/06/itam-consultant-skills-experience/***