



IT Asset Management Benefits & Best Practices

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Introduction

The fact that your IT infrastructure is growing is undisputed; and you know it! Each day new users are being added and so are IT assets – hardware and software. It's the responsibility of system admins to track and manage these assets. Potential IT issues could be resolved quickly, efficiently, and with better IT administration support, if you have the visibility into all the IT assets that exist in the organizational IT landscape – network, data center, remote sites, user workstations, etc.

What is IT Asset Management?

IT asset management (ITAM) is a set of business practices that join financial, contractual, and inventory functions to support life cycle management and strategic decision making for the IT environment [\[1\]](#). Managing IT assets allows you to get maximum value from the use of the assets, right-size IT inventory, and optimize inventory purchase decisions and strategies.

IT asset management provides you the means to achieve complete visibility into your IT infrastructure inventory, helping you gain an in-depth understanding of:

- What systems and equipment exist
- Where components reside
- How they are used
- What they cost
- When were they added to the inventory
- Whether they have an expiry date
- How they impact IT and business services

This level of visibility into asset details will help organizations improve infrastructure efficiency and performance, and minimize related overhead expenses. All organizations, in one way or the other, perform ITAM. It's important to implement ITAM practices intelligently, in order to achieve IT operational efficiency, financial accountability of asset purchase, simpler auditing and compliance, and long-term asset manageability and maintenance.

In this white paper, we'll focus on the benefits of proper IT asset management, best practices, and how to implement it, so it benefits your IT teams, business, end-users and employees.

IT Asset Management Methodology

The major goal of ITAM is to establish a centralized asset repository that accounts for the presence and purchase of all your hardware and software inventory. To achieve this, ITAM methodology comprises the following steps:

- **Asset discovery, data capture and storage** – Discovering all hardware and software components of IT inventory on the IT infrastructure and capturing their details, such as the type of asset, make, specification, etc., and storing it in an asset repository
- **Asset tracking** – Being able to identify and track change in the location of assets, increase or decrease the number of assets, track assignment status and user information
- **Asset lifecycle management** – Being able to capture the asset lifecycle data right from requisitioning, purchase and assignment, to expiry and decommissioning
- **Asset reporting and alerting** – Being able to generate asset inventory reporting, and receive alerts on asset warranty and lease expiration

Centralized organization-wide ITAM process and asset repository will also help you support various ITIL functions, such as configuration management, incident management, problem management, and service level management. While we are looking to build a centralized asset repository, it's important to understand the difference between asset repository and configuration management database (CMDB). The CMDB is an evolution of the asset repository which is part of the ITIL framework. Beyond the scope of asset discovery and tracking, the CMDB is integrated with service desk functions and is part of IT service management and change management.

Hardware Asset Management

Hardware asset management is the process of tracking and managing the physical components of computers and computer networks, from acquisition through disposal. The goals of hardware asset management are to account for all hardware assets on the IT infrastructure to provide comprehensive inventory visibility. Further, to help with vendor contract and lease management, and to assist in making budgetary forecasts based on the stock of assets and business requirement.

Software Asset Management

Software asset management is similar to hardware asset management, but focuses on software assets, including licenses, versions, and installed endpoints. ITIL states that the goals of software asset management are to reduce IT costs and limit business, legal and security risks related to the ownership and use of computer software, while maximizing IT responsiveness and end-user productivity

Let's dive a little deeper and understand the various benefits of IT asset management and some best practices to implement it in your IT framework.

Benefits of IT Asset Management

Gain Control Over IT Inventory

If you are carrying out an effective asset management practice for your organization, you'd benefit from deeper visibility into your hardware and software assets. Therefore, IT Admins and support personnel should look further into viewing and managing asset details of the end-user system. Asset management gives you the ability to easily view the hardware and software components of a computer, server, or any other network infrastructure. Traceability of assets across your IT landscape gives you better IT administration control and accountability. Using an automated asset discovery and management functionality, along with your [server and application monitoring tool](#) will allow you to see the computer inventory details, all while you are actually troubleshooting a server crash or application performance issue. You can also find out if an employee has any unauthorized and non-compliant hardware or software on their enterprise workstation.

A server or a workstation will benefit from asset management data covering the following:

- *Drivers*
- *Firmware*
- *Graphics and Audio*
- *Hard Drives*
- *Hosted Virtual Machines*
- *Logical Volumes*
- *Memory*
- *Network Interfaces*
- *Operating System Updates Applied*
- *Out of Band Management*
- *Peripherals*
- *Ports and USB Controllers*
- *Processors*
- *Removable Media*
- *Software Inventory*
- *Storage Controllers*
- *System Information*
- *OS Update Information*

Asset Lifecycle Management

Hardware or software, there's bound to be a disposal or replacement date. Asset management allows you to keep track of when a hardware is purchased, how long has it been used, whether there's a lease expiring on the component, etc. For system administrators, it's important to know what version of software and how long your end-users have been running this software on their system, and whether their OS is current.

This is actionable data IT teams utilize to decide if they should replace an old or faulty hardware, uninstall or patch a vulnerable application, or update the firmware on the system. Vendor contract management should familiarize themselves with Asset information. In turn, they will know when to extend or renew a contract with your vendor or

hardware/software provider based on contract, purchase order, and expiry information fed into the asset management system.

Strategic Inventory Planning & Procurement Forecast

When you keep track of what inventory you have in your IT infrastructure, it becomes easier to plan for future spending on assets. Without knowing what currently exists in your end-user systems – both hardware and software – it is very difficult to plan on procurement budget. You may actually end up procuring more assets, and those of which that are not required. Centralized and streamlined asset management lets you scan your entire network and list which hardware and software your system is using. Being able to collectively view inventory data with storage capacity of end-user systems is useful for storage utilization analysis and budget planning. This information becomes critical as you start charting out your financial planning, allowing you to plan well in advance for future asset needs, and maximizing existing asset utilization and eliminate unnecessary expenditure.

Increased Accountability to Ensure Compliance

Keeping track of your IT inventory and automatically updating it using asset management systems will help you monitor hardware and software components of your network computers, and identify whether unapproved or harmful software or hardware is installed. Ensuring compliance with corporate security policies and desktop standards is a must for organizations, and efficient asset management of IT inventory will help you accomplish that.

By allowing system administrators to quickly isolate vulnerabilities, such as illegal/unauthorized software, outdated software, games and unauthorized/malicious downloads, ITAM system makes it easier to see where potential risks may exist, so they can be prevented before major problems arise.

Not just helping you to keep systems and assets compliant, but a good ITAM solution will also provide IT inventory reports for compliance auditing.

Automated Asset Discovery & Tracking

Many companies manage their IT asset inventory using manual, paper-intensive processes, which drain resources and are highly prone to inaccuracies and inconsistencies. Spreadsheets are used by many IT teams to manually enter details of the assets and then they constantly have to modify assets as they update. With the introduction of IT asset management solutions and asset management integrations with systems and network monitoring tools, this process has been made amazingly simpler and quicker.

ITAM systems perform automated device discovery on your enterprise LAN. For example, if there are Windows® servers and operating systems on your network, then using WMI, the ITAM tool can discover the Windows nodes and fetch all hardware and software asset information from them.

With the pace that enterprise networks are growing and IT systems are getting updated, an automated asset management method is a must to constantly keep abreast of asset updates and changes. Automated ITAM considerably saves manual effort and time, and results in lesser errors and personnel overheads.

Best Practices for Implementing IT Asset Management

Asset Management with Server & Application Management System

For IT admins, [application performance management](#) (APM) is key to ensuring undisrupted business service through high availability and performance of applications and server infrastructure. Incorporating asset management as part of your APM solution will help you identify the right server assets, what's installed in the server, whether the server has an expiring lease and warranty, or has enough storage capacity, etc. while you actually troubleshoot and remediate application or server hardware health issues. [View how this will look >>](#)

System Information HELP

General

Last Inventory Collection: Sunday, November 03, 2013 6:11 AM

System Name: ● SYD-HYV-01

Host Name: SYD-HYV-01

DNS: SYD-HYV-01.

Domain Role: Member Server

IP Address: 10.199.5.108

Dynamic IP: No

Hardware

Asset Type: Server

Hardware: Physical

Manufacturer: Dell Inc.

Model: PowerEdge 2950

Serial Number/Service Tag: GG1JQJ1

Warranty Status: Expires 11/24/2013

Location: Sydney

Device Time Zone: (UTC-06:00) Central Time (US & Canada)

Operating System

Operating System: Microsoft Windows Server 2012 Standard

OS Version: 6.2.9200

OS Architecture: x64-based PC

OS Language: English (United States)

Last Boot: Thursday, October 24, 2013 11:23 AM

Last Logged In User: TOK-HYV-01\administrator

Firewall Status: Not Enabled

Out of Band Management

MANAGEMENT CARD	TYPE	FIRMWARE VERSION	IP ADDRESS	MAC ADDRESS
Remote Access Controller (DRAC 5)		1.45.00 (Build 17)	10.199.2.79	Unknown

Processors

PROCESSOR	MANUFACTURER	SPEED	CORES	THREADS	MODEL
Intel(R) Xeon(R) CPU E5420 @ 2.50GHz	GenuineIntel	2.50 GHz	4	4	Model 23

Total Count: 1

Memory

Memory Summary

TOTAL RAM	FREE RAM	TOTAL VIRTUAL MEMORY	FREE VIRTUAL MEMORY
8186 MB	5381 MB	9402 MB	6532 MB

Memory Modules

SLOT	CAPACITY	MODEL	SPEED
DIMM1	2048 MB	NT2GT72U8PD1BD-3C	667 MHz
DIMM2	2048 MB	NT2GT72U8PD1BD-3C	667 MHz
DIMM3	2048 MB	NT2GT72U8PD1BD-3C	667 MHz
DIMM4	2048 MB	NT2GT72U8PD1BD-3C	667 MHz
Empty	Unknown	Unknown	Unknown
Empty	Unknown	Unknown	Unknown
Empty	Unknown	Unknown	Unknown
Empty	Unknown	Unknown	Unknown

Occupied Slots: 4

Network Interfaces Search interfaces

NAME	MANUFACTURER	MAC ADDRESS
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Asset Management with IT Help Desk

It makes a lot of sense to incorporate asset management into your [IT help desk](#). IT is ultimately the hardware and software assets that your users are creating trouble tickets and service requests for. Being able to capture the entire asset data of your IT inventory including purchase order, parts and billing information will be really useful as you provide help desk support. It'll be even more beneficial if your help desk is able to associate and tag trouble tickets with specific assets so you can track the history of service requests.

Integrating asset management with help desk results and a more efficient ITIL support, change management and overall service request fulfillment. [View how this will look >>](#)

Asset Basics	Asset Details	Asset History	Ticket History
 			
Serial No.	<input type="text" value="7289-8106-1287-8797-0"/>		
Version	<input type="text" value="Microsoft Windows 8"/>		
IP Address	<input type="text" value="10.199.1.182"/>		
Network Name	<input type="text" value="devbox-aus-07"/>		
MAC Address	<input type="text" value="00:15:5D:42:28:27"/>		
Purchase Date	<input type="text" value="09/14/12"/> 	<input type="button" value="Use a Purchase Order Number"/>	
Warranty Type	<input type="text" value="3 Years"/> 		
Warranty Exp.	Purchase date or warranty type missing		
Lease Exp.			
Audit Date	<input type="text" value="11/22/13"/> 	<input type="button" value="Today"/>	
Wireless MAC Address	<input type="text"/>		
Operating System Version(s)	<input type="text" value="6.2.9200"/>		
Operating System Vendor	<input type="checkbox"/> Windows <input type="checkbox"/> OS X <input type="checkbox"/> Linus <input type="checkbox"/> Unix <input checked="" type="checkbox"/> Microsoft Windows 8 (6.2.9200)		
CPU Brand	<input type="text" value="Intel64 Family 6 Model 45 Stepp"/> 		
CPU Speed	<input type="text" value="4 GHz"/>		
Number of CPU's	<input type="text" value="4"/>		
Anti-Virus Installed	<input checked="" type="radio"/> Yes <input type="radio"/> No		

Asset Management with Patch Management & Software Distribution

A [patch management](#) solution scans your system for critical and vulnerable software and third-party applications that need to be updated to mitigate security risks. Once the systems with vulnerable apps, and the apps themselves are identified, then the system admin will patch them with the latest version of the software or operating system. Asset management plays a crucial role here as all the servers, workstations and notebook assets on the IT environment have to be discovered first and then their software inventoried.

Operating System Overview

ALL NODES MANAGED BY WSUS HELP

Node Count: 5

- 3 Windows XP Professional
- 1 Windows 7 Enterprise Edition
- 1 Windows Server 2008 R2 Enterprise Edition

Top 10 Most Vulnerable Machines

HELP

MACHINE	OPERATING SYSTEM	UPDATES MISSING
ew-vgdemowsus1.demo.corp.eminentware.com	Windows Server 2008 R2 Enterprise Edition	61
ew-vgdemoxp-w02.demo.corp.eminentware.com	Windows XP Professional	21
lgarvin-it.tul.solarwinds.net	Windows 7 Enterprise Edition	21
ew-vgdemoxp-w03.demo.corp.eminentware.com	Windows XP Professional	19
ew-vgdemoxp-w01.demo.corp.eminentware.com	Windows XP Professional	17

UPDATE NAME	SEVERITY
Security Update for Internet Explorer 8 for Windows XP (KB2544521)	Critical
Security Update for Windows XP (KB2510531)	Critical
Adobe Flash Player 32-bit ActiveX 11.2.202.235	Important
Adobe Flash Player 32-bit Plugin 11.2.202.235	Important
Google Chrome 19.0.1084.46	Important
Security Update for Windows XP (KB2483614)	Important
Group Policy Preference Client Side Extensions for Windows XP (KB943729)	Unspecified
Microsoft .NET Framework 3.5 Service Pack 1 and .NET Framework 3.5 Family Update (KB951847) x86	Unspecified
Microsoft .NET Framework 4 Client Profile for Windows XP x86 (KB982670)	Unspecified
Microsoft .NET Framework 4 for Windows XP x86 (KB982671)	Unspecified
Microsoft Browser Choice Screen Update for EEA Users of Windows XP (KB976002)	Unspecified
Update for Internet Explorer 8 Compatibility View List for Windows XP (KB2598845)	Unspecified
Update for Windows XP (KB2632503)	Unspecified
Windows Malicious Software Removal Tool - August 2012 (KB890830)	Unspecified
Windows Media Player 11	Unspecified
WinZip 14.0	Unspecified
WinZip 16.5.10095 (x86)	Unspecified

Server Node Health Overview

ALL SERVERS MANAGED BY WSUS HELP

Node Count: 1

- 0 Computers up to date
- 0 Computers needing updates
- 1 Computers with update errors

Latest 10 Patches on WSUS Servers

HELP

GROUPED BY PRODUCT TITLES

NAME	SEVERITY	INSTALLATIONS	ARRIVAL DATE
MS Security Essentials			
Security Essentials			
Windows Defender			

Desktop Node Health Overview

ALL DESKTOPS MANAGED BY WSUS HELP

Node Count: 4

- 0 Computers up to date
- 3 Computers needing updates
- 1 Computers with update errors

Top 10 Patches Missing

HELP

Asset Management with Network Configuration & Change Management (NCCM)

The application of asset management is a little different with NCCM as it applies more to network devices, such as routers, switches and firewalls. As network administrators use [network configuration & change management](#) tools to manage device configurations, it's also important to the management of network device inventory. NCCM solutions offer a device end-of-life (EOL) management feature that helps you manage the lifecycle of your network assets, who the manufacturer is, and when the product will be EOL'd. This will help in preparing budget forecasts for product maintenance renewal and device replacement planning. [View how this will look >>](#)

Group by:	Export	Assign Dates	Refresh Suggested Dates	Ignore Devices	Delete EOS Data	
Vendor	Name	IP Address	End of Support	End of Sal...	EOS Comments	Machine Type
Adtran (3)	backdoor_6506	10.199.3.25	05/15/2010	05/15/2005	Budget approved.	Cisco Catalyst 6000
Brocade Communications Sy... (1)	Bas-2621_aus.lab	10.199.4.1	04/15/2011	04/15/2008	Plan budget for Q4.	Cisco 2621 XM
Cisco (12)	Cai-1200AP	10.199.20.146	10/31/2018	10/07/2013	PO 56249 placed.	Cisco 1200 Access
Dell Computer Corporation (2)	Core-3640	10.199.254.30	10/04/2010	10/04/2005	Replace with new model.	Cisco 3640
Extreme Networks (1)	Cur-3500	10.199.3.10	04/26/2009	04/26/2004	Budget approved.	Cisco Catalyst 3548
HP (1)	EW-3750A	10.199.10.10	10/11/2012	10/13/2007	Budget approved.	Catalyst 37xx Stack
Juniper Networks, Inc. (1)	EW-3750B	10.199.10.11	10/11/2012	10/13/2007	Budget approved.	Catalyst 37xx Stack
Linksys (1)	EW-4506E	10.199.10.12	07/31/2015	07/31/2010	Budget approved.	Cisco Catalyst 4506
Palo Alto Networks (1)	Syd-2621_aus.lab	10.199.5.1	04/15/2011	04/15/2008	Replace with new model.	Cisco 2621 XM
Synoptics (3)	Tex-2511	10.199.1.4	03/31/2006	04/30/2001	PO 56249 placed.	Cisco 2511
	Tex-3750_aus.lab	10.199.1.10	10/11/2012	10/13/2007	PO 56249 placed.	Catalyst 37xx Stack
	Tok-1200AP.lab.tok	10.199.2.20	10/31/2018	10/07/2013	Plan budget for Q4.	Cisco 1200 Access

Conclusion

As we saw in this paper, asset management is not an option for IT teams. ITAM spans across by simplifying IT operations, improving resource productivity, supporting compliance, and asset procurement planning. Whether you are a small, mid-size, or large enterprise, IT asset management is something you should definitely implement. Simplified, centralized and automated asset management is key to improving your overall IT administration's operational efficiency. Take control of your IT asset inventory, ensure you stay updated of asset changes in your IT environment!

About SolarWinds

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