



Next-Generation IT Asset Management: Transform IT with Data-Driven ITAM



In This Paper

- IT Asset Management, one of the key pillars of IT, is currently highly siloed from related and dependent functions
- Next-generation ITAM provides a consolidated, standardized data layer that is the foundation for convergence and unification of IT data
- BDNA enables next-generation IT Asset Management by providing a data platform as the foundation for unified IT

Datamation®
Executive Brief

The Current State of IT Asset Management

The IT industry is rapidly evolving towards unification and convergence but IT asset management (ITAM), one of the key pillars of IT, is highly siloed from related and dependent functions. As a pivotal function within the enterprise, IT asset management needs to align with business strategy. It is the critical solution to meet fiscal goals while improving asset and personnel performance and mitigating risk. It does this through a set of business practices that join IT, financial, contractual and inventory functions to support lifecycle management and strategic decision making for the IT environment and the organization overall.

The reality of today's IT asset management is unmanageable complexity due to proliferation of new technology at alarming rates. IT data is splintered across the enterprise within numerous systems and tools spanning IT asset management, Finance, Procurement, Security, IT GRC and other functions. Data quality issues pervade the IT asset management processes and related functions, making integration and sharing very difficult.

The fallout from this includes:

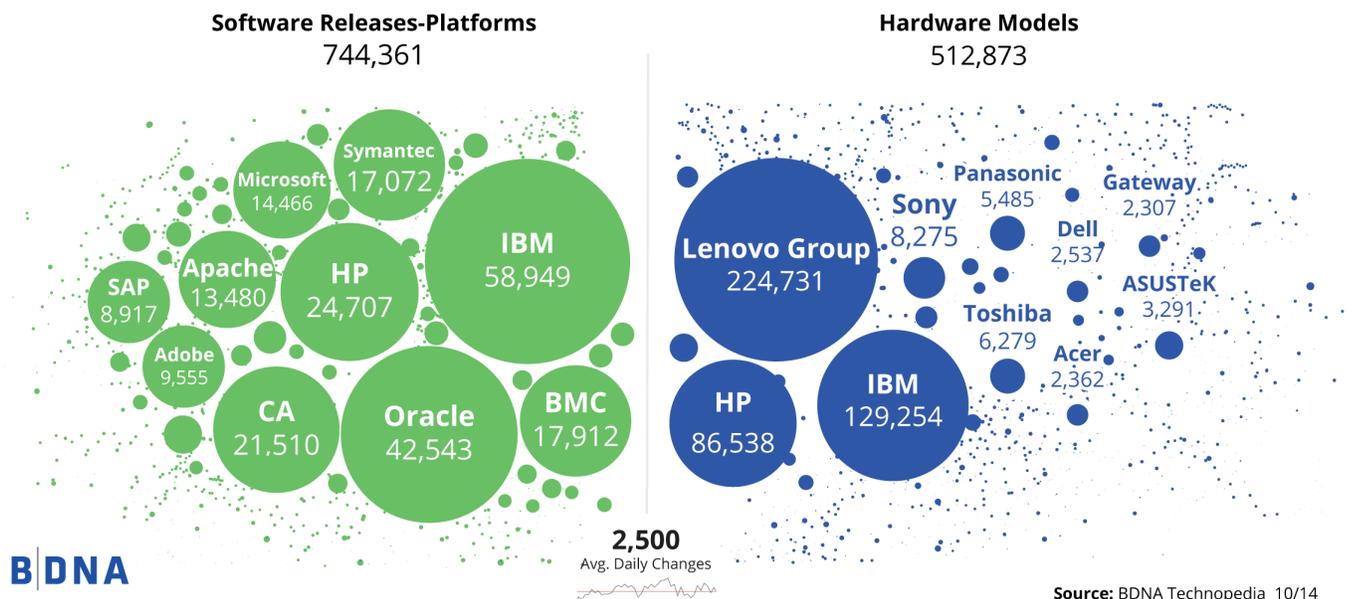
- Poor visibility into the asset landscape
- Increased corporate and security risk associated with vulnerabilities

- Lack of a healthy alignment between the business strategy and the ITAM process
- Unnecessary complexity
- Mounting costs and inefficiencies
- Sub-optimal decision making

This data problem can be fixed without replacing current tools and infrastructure. Next-generation IT asset management focuses on convergence and unification. It has access to a complete and accurate inventory. It is a singular authoritative source of truth that multiple enterprise functions need, granting ITAM greater impact.

Information Technology Landscape

1,257,234 Hardware Models and Software Releases-Platforms



Source: BDNA Technopedia 10/14

This paper explains how the next generation of data-driven IT asset management can help control costs, mitigate risk and enable standardization by aligning IT asset management with enterprise goals.

Next-Generation IT Asset Management

If an enterprise wanted to re-envision IT asset management to conform to today's IT and business priorities, what would it look like?

Next-generation IT asset management provides a consolidated and standardized data layer that provides the foundation for convergence and unification of IT data. It is a robust and intelligent system, out of its silo, more closely aligned with other functions to improve business.

With all of the potential benefits, why aren't more organizations moving toward the vision of Next-Generation IT Asset Management?

Barriers to the Next-Generation IT Asset Management Vision

There are three major barriers within any organization that keep them from achieving next-generation IT asset management.

- Disparate tools and systems used to collect IT data.**
 Network discovery tools, asset and configuration management systems, and even manual processes are just a few of the disparate information silos.
- Lack of integration.** Upon collection of the IT data, ITAM teams are often left with no easy way to integrate a huge amount of mismatched, duplicate and disparate information.
- Poor data quality.** Data from the disparate sources is low quality and creates inconsistencies that must be manually reconciled.

Poor data quality has the most impact, leaving organizations with information that is not meaningful, actionable, or accurate. The top symptoms of bad data quality include lack of standardization, irrelevance and inaccuracy.

Lack of standardization

IT data across the disparate sources is inconsistent and/or incompatible and requires manual reconciliation. Within and across the source systems there are multiple names for a single vendor, single product, and/or version of a product.

Software Adobe Acrobat

Software - Adobe Acrobat	
Adobe Acrobat 8 Standard -English	Acrobat 6.0 Standard
Adobe Acrobat 6.0 Standard - English	Acrobat Professional 11.0.02 (R1)
Adobe Acrobat 7.0 Standard - English	Acrobat Professional 6.0.1 R1
Acrobat	Acrobat Standard 6.0.1 R1
Acrobat 05	Acrobat Standard 8.1.5 (R1)
Acrobat 06	Acrobat X Pro
Acrobat 4.0	Acrobat X Professional 10.0.0
Acrobat 5	AcrobatProfessional [AIS]
Acrobat 6.0 Pro	AcrobatProfessionalExtended [AIS] 09.00.000.0101
Acrobat 8 Professional	Acrobat_Reader_705

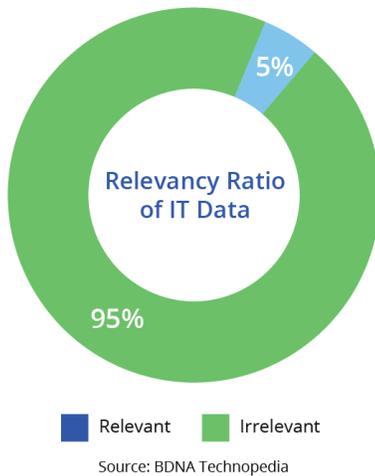
Source: BDNA Technopedia

Next-generation IT asset management provides a consolidated and standardized data layer that provides the foundation for convergence and unification of IT data.

The average duplicity ratio in vendor names is 10:1. For example, HP can be represented 24 ways by company name, business units, and acquired businesses. Software applications are even worse with an average duplicity ratio is 20:1. Adobe Acrobat might appear under more than 40 names.

Irrelevant and inaccurate data

ITAM data includes millions of lines of raw data about IT assets that hold no value for supporting lifecycle management and strategic decision making. In fact, BDNA Technopedia® has identified as much as 95 percent to be irrelevant and unnecessary.



Non-Discoverable Data

Non-discoverable Data	Functions and Initiatives that Require the Data
End-of-life	Lifecycle, IT Cost, Vendor Management
Form factor	Data Center Planning/Consolidation
Power rating	IT Cost, Green IT, Data Center Consolidation
CPU Core	Core based licensing, Server Management Standard 6.0.1 R1
Parent Company	Vendor/Incident Management
Application Compatibility	Virtualization, OS migration, App Modernization
Licensing	SAM, Audits, License Optimization

Source: BDNA Technopedia

Inaccurate data can be the result of:

- fields filled with default data such as “unknown” or “not applicable”
- manual data entry
- limitations or requirements of certain systems

Missing or incomplete data

Not all of the IT data that is needed is available through the traditional IT data collection methods. None of the “market data” such as software end of life (EOL) dates, the physical size of data center hardware, application compatibility, and licensing details is available from standard discovery tools. And much of the missing or incomplete data tends to originate in areas other than IT.

Data Required by Different Business Functions

Inaccurate, incomplete, non-standardized data puts other business functions at risk of not meeting their business requirements and goals. This creates missed opportunities to improve planning, budgeting, and procurement processes. Negotiations with IT vendors suffer if they can’t show compliance. Security risk increases if vulnerability mapping isn’t in place.

Software EOL dates, for example, make it easier to plan, budget, and procure new software and are crucial to proper software lifecycle management. The physical dimensions of data center hardware can help the IT and Facilities functions plan a data center move

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or consolidation. Compatibility information helps plan migrations to cloud or virtual environments.

Next-generation IT asset management focuses on the data — its accuracy, completeness, and standardization. It helps enterprises compile, consolidate, and share the data they need to improve their business outcomes. This is data-driven IT asset management.

What does it take to make this vision a reality?

What is Data-Driven ITAM and How it Transforms IT

Data-driven IT asset management consists of:

- **A consolidated and standardized data layer** that provides the foundation for the convergence and unification of enterprise IT data. Data quality can be improved by inserting a data layer to make sense of the millions of data points that enter the system.
- **Separation of the data** from the systems and the tools. The easiest way to clean up issues around data quality is to concentrate on the data itself, not the systems and tools that collect and analyze the data.
- **Consolidation across systems and tools** so all of the data can be

analyzed and cleaned up regardless of its origin.

- **Clean, enriched data with meta-data** from an authoritative source like a reference catalog that fills in missing and incomplete data with information not collected by discovery tools and other systems. A single authoritative source provides a “single view of the truth” to enrich data while maintaining accuracy.
- **Feeding clean, accurate data into downstream applications** so it can be shared and used by other business functions.
- **Leveraging existing tools** by focusing on IT asset management at the data layer. There’s no need to invest in new tools to collect data or perform a rip-and-replace upgrade.

This vision for data-driven, next-generation IT asset management

helps distribute clean, accurate, and complete data that business functions need to improve outcomes. There are a number of business functions in nearly every organization that can put this data to use.

Use Cases for Next-Generation ITAM

Security

IT security professionals need to know what they have in order to protect it. Data that delivers an accurate picture of the software applications in use helps manage vulnerabilities. This is done by mapping ITAM data about software applications to Common Platform Enumeration (CPE), a standardized method of describing and identifying classes of applications, operating systems, and hardware devices in the business. Many existing tools miss vulnerabilities because of variance in their data. An organization may think it has 10 or 15 vulnerabilities, but will find thousands

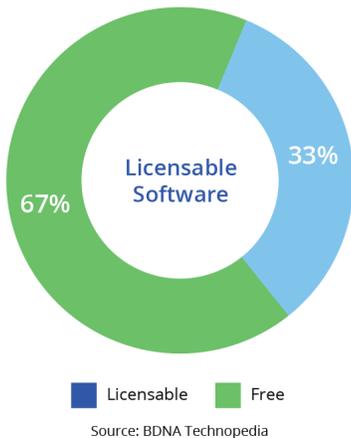
Mapping Asset Raw Data to CPE & CVE Data

	Raw Data	SunOS 5.9	SunOS 5.9
Security	Manufacturer	Oracle	Oracle
	Family	--	--
	Version	Solaris	SPARC T-Series
	CPE Name	9	--
Security	CVE ID	cpe:/o:sun:sunos:5.9	cpe:/h:oracle:sparc_t4-1
	CVSS Score	CVE-2013-3745	CVE-2013-1494
	Licensing	2.1	4.7

Source: BDNA Technopedia

Governance, Risk and Compliance (GRC)

Providing accurate data for GRC helps businesses avoid costly penalties for failing to comply with any number of regulations, such as HIPAA, PCI, FDCC, FISMA, and more. Compliance requires an accurate view of the infrastructure, including information about software versions, patches, user access, and more. GRC also needs accurate information on software licenses to help ensure compliance. In addition, GRC can use ITAM data to provide accurate inventory controls and help monitor security policies.



Enterprise Architecture

Enterprise architects use IT data to plan, budget and forecast, and minimize disruptions across the enterprise. Visibility to EOL dates helps them evaluate impact across the organization and make informed decisions around planning, managing

and retiring EOL software applications efficiently. If a new purchase is on the horizon, they can determine compatibility with existing systems.

Virtualization/Cloud/App Modernization

Organizations continue to explore opportunities to increase efficiency and decrease capital expenditures by virtualizing applications and workloads and migrating to the cloud. To increase the success rate of such migration, you need accurate data on compatibility with hypervisors from different vendors, for example, or with cloud environments. This requires data from an up-to-date reference catalog because it's not collected by discovery and configuration tools.

Vendor Management/IT Procurement

Enterprises cannot completely protect their investments in software and other IT assets without a clear picture of what they have and how it performs. Accurate, standardized data enables organizations to enter vendor negotiations armed with information on incidents, SLA performance, current assets, refresh cycles, and more. Precise software purchase information can pinpoint when an organization is due to receive entitlements. Accurate ITAM data can identify opportunities for vendor consolidation where acquisitions

occurred. For example, Technopedia cites almost 30 hardware, software and IT service acquisitions between 1998 to 2012, of which more than half were undisclosed.

Service Desk/ITSM

Access to accurate hardware and software data helps service desk employees solve problems faster and operate more efficiently. This results in improved key performance indicators (KPIs) for the service desk and cost savings for the business. Good data can also identify trends that help guide equipment purchases and repairs. For example, If a certain laptop model has recurring keyboard issues, accurate, standardized ITAM data can spot the pattern. Bad data, on the other hand, may be filled with different naming conventions for the vendor or model involved, allowing the breadth of the problem to go unnoticed.

How BDNA Can Help

BDNA enables Next-generation IT Asset Management by providing a data platform as the foundation for unified IT. The solution consolidates, de-duplicates, filters and normalizes IT asset data across data sources, then enriches it with market intelligence. The consolidated and unified data is then fed to downstream applications across the enterprise to ensure that all functions are aligned with each other as well as with the business goals.

BDNA offers the following products:

- **Technopedia® Catalog:** Technopedia is the world's largest and most comprehensive catalog of IT hardware and software product information. With more than 1 million hardware and software assets defined, it serves as the foundation for a common language so that data from multiple sources can be mapped to a single identity. It categorizes and aligns more than 40 million data points about 500,000+ software releases, 600,000+ hardware products, and

20,000+ vendors, with updates of more than 2,500 data points daily. Technopedia data is available in a Data as a Service (DaaS) model to ensure customers have access to the most current data set. BDNA updates this reference catalog daily to keep pace with market dynamics.

- **Technopedia® Content Packs:** Over 50 million meta-data points including non-discoverable market intelligence that can be used by IT asset management as well as other functions across the enterprise like Security, IT GRC, Enterprise Architecture, Vendor Management, and more.
- **BDNA Normalize®:** BDNA Normalize filters, de-duplicates, and integrates discovery data to eliminate inconsistencies in vendor and product data, giving IT a clear enterprise-wide picture of what software is installed, where, and where it is or isn't in use.
- **BDNA Normalize® for Purchase Orders:** BDNA Normalize for Purchase Orders provides clarity, consistency and completeness to procurement's most critical business record. It automatically translates procurement data to entitlements to give IT a comprehensive record of all software purchases throughout the organization.

Seventy-one percent of BDNA customers realize ROI in less than 6 months (about half of them realized in less than 1 month) and sixty-four percent realized ROI greater than 200 percent.

To learn more about how BDNA can help your organization move to data-driven, next-generation IT asset management, visit www.bdna.com