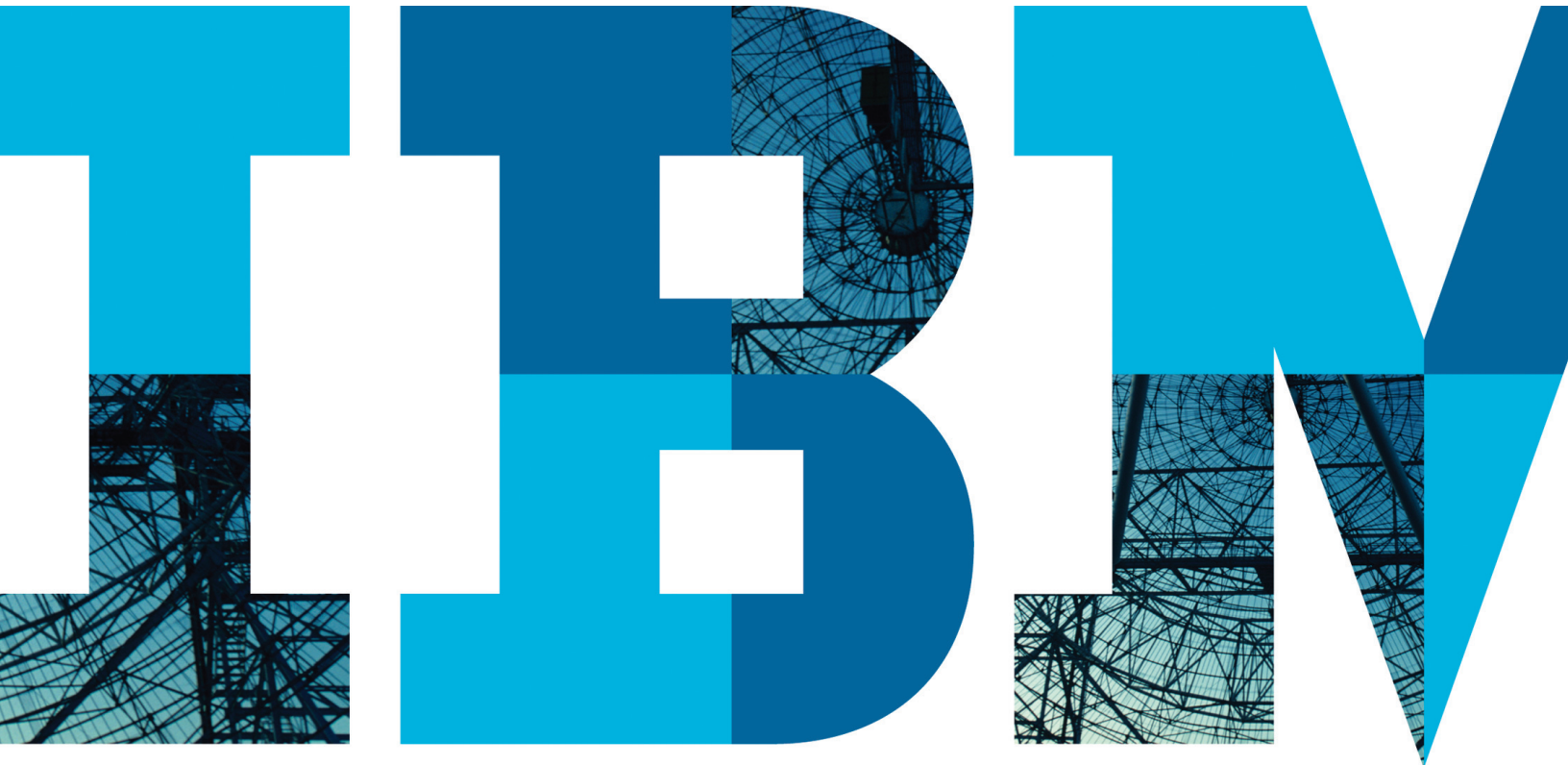


Gain IT asset visibility, control and automation

*Control costs and improve service performance with
IBM IT asset management solutions*



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Understanding the challenges of managing IT assets across the asset life cycle

IT Asset Management has always been a key element in a comprehensive service management strategy, and that has never been truer than it is today. Due to an unpredictable economic climate, organizations are more focused than ever on getting the maximum value out of IT assets, traditionally understood to be hardware and software.

Yet asset and financial management teams often operate separately, with little or no information sharing. The lack of common visibility and inadequate and disjointed management capabilities, results in poor and inconsistent decision making. What's more, the term "IT asset" has taken on a whole new meaning, as medical devices, meters and even vehicles are increasingly embedded with computers and business-critical intelligence and have thus evolved into "Intelligent Assets". Adding to the process and information inconsistencies, other process maturity issues, such as the common failure to reclaim unused licenses or to under-license in the virtual environment, cause unnecessary expenses in even the most budget-conscious IT organizations.

Other common obstacles to asset management include:

- The inability to distribute patches in a way that minimizes downtime.
- Lack of visibility into asset configurations and changes to understand their potential impact.
- Manual management processes and process integrations that drive up costs and slow asset-related cycle times.
- The inability to create and then access a single truth source for asset reporting and decision making.

Traditional asset management, which some organizations address through the use of manual tracking and even spreadsheets, is time consuming and rife with inaccuracies. Effective asset management demands automated processes that can speed response time and agility during times of rapid change, such as mergers

and acquisitions. Further, these automated processes must span the breadth of the asset management life cycle, from planning to acquisition, deployment, management and disposition (including the often overlooked license reclamation).

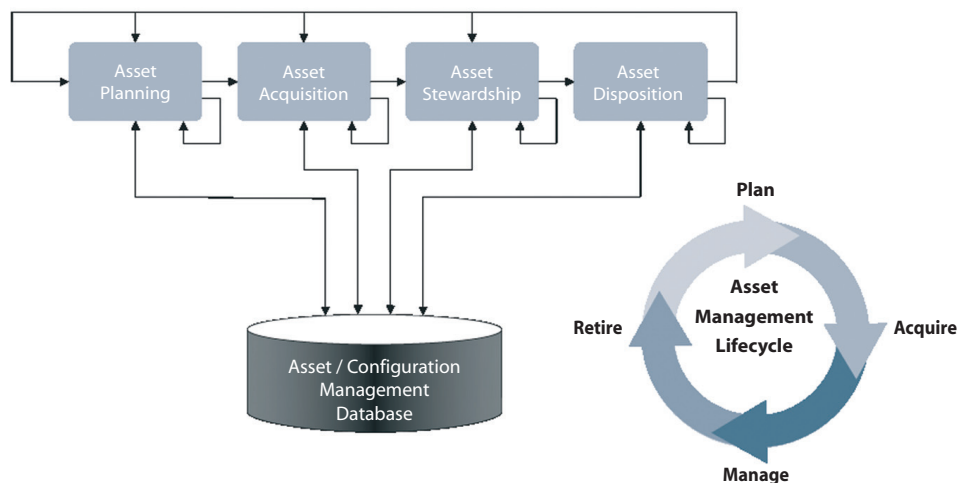
IBM IT Asset Management solutions can provide comprehensive, integrated lifecycle capabilities, offering opportunities to improve infrastructure management by providing the visibility, control and automation needed to enhance customer service and deliver real cost savings.

This white paper examines how IBM IT Asset Management enables organizations to take control of IT assets, from planning through disposal, to improve service quality and better manage

asset costs. It discusses in detail how IBM solutions deliver improved visibility, control and automation throughout the IT asset management life cycle. For instance, IBM can help organizations understand and make use of information on:

- Which assets are deployed, and where.
- The status of an asset's contract, lease or warranty status.
- Where the asset is in its productive use life cycle.
- How the asset is performing.
- Whether the asset has received a required patch.
- Whether the asset is properly licensed.
- How the asset is configured in relation to other assets in ways that may affect business services.
- What the asset costs

Asset Management Lifecycle



IBM IT asset management enables organizations to manage across the complete asset life cycle.

Planning: Know what assets are needed and when, and how changes affect assets and services

IT asset visibility is key when planning changes, from upgrades to configuration changes and patch distributions. Organizations must be able to understand which assets are connected to components of business-critical services, and how changes can affect those services. Will taking down this server affect a database required for online customer orders? When an asset fails, should it be repaired or is it less costly to retire it? What is the asset's performance history?

Yet in increasingly complex IT environments assets are often difficult to see, making it impossible to predict how changes may affect business services. IBM IT asset management solutions can help organizations make educated decisions during the asset planning phase, using asset data to drive decisions on leases and purchases; on technology upgrades, by knowing which version of software has been deployed on a machine, for instance, and to establish solid asset acquisition budgets and schedules based on technology refresh cycles. For instance, workflow-driven change processes within IBM Tivoli® Change and Configuration Management Database (CCMDB) help to reduce costs by speeding change processes and help to reduce risk by planning and communicating the change before it occurs. IBM solutions can also help track asset performance, to create vendor scorecards to aid in future acquisitions and support the disposition process.

Redefine Asset Management roles and responsibilities

When establishing an asset management strategy, organizations are well advised to take a fresh approach—by redefining asset management roles and responsibilities—to adjust not just the ways in which they think about asset management data, but also the ways in which they provide decision-making information. In the end, this new approach to asset management must include a willingness to eschew the old “way of doing things,” including spreadsheets and personal databases. Instead, an effective asset

management strategy will include formally defined asset management procedures, change management and configuration management processes and policies for governance.

Establish a base Asset Management solution

Establishing a solid foundational Asset Management platform can help organizations lay the groundwork for strong asset planning. Starting with IBM Tivoli Asset Management for IT as a cornerstone solution, IBM offers numerous integrated solution components to manage hardware and software assets and related licenses to help lower costs, mitigate compliance risk and better align IT with business goals. IBM IT asset management solutions enable organizations to:

- Gain deep visibility across the enterprise into which licenses have been purchased, how many, when, for which projects and why.
- Manage procurement, budgeting and contracts more effectively and cost-efficiently.
- Maintain control of hardware assets through an up to date and proactively managed authorized repository.
- Proactively manage and verify increasingly complex software license compliance requirements.
- Reduce unnecessary license fees by identifying inactive assets or redeploying underutilized assets.
- Prepare for contract negotiations by providing a complete view of software deployment across the enterprise.
- Leverage automated workflows to eliminate error-prone and costly manual processes.
- Generate accurate reports, out of the box, to aid in hardware and software tracking and in audit preparations.
- Track and manage software assets and asset usage throughout the asset life cycle more efficiently.
- Plan for future hardware and software needs in alignment with IT requirements, business priorities and budgetary goals.
- Keep an accurate inventory of deployed assets.
- Automate service request fulfillment through an integrated service desk and service catalog.
- Meet compliance requirements through automated license tracking.

Establish a comprehensive asset discovery strategy

One of the greatest challenges in asset management can be in understanding the actual deployed asset inventory, which typically spans a variety of platforms and domains. IBM IT asset management solutions can help establish a comprehensive asset discovery strategy and solution set. Using capabilities of solutions like IBM Tivoli Asset Discovery for Distributed and IBM Tivoli Asset Discovery for z/OS®, organizations can maintain an up-to-date inventory of installed distributed IBM and non-IBM software and hardware, as well as software usage data. This information can then be compared to the authorized inventory to validate the information, and identify and address discrepancies. Additionally, data from IBM Tivoli Application Dependency Discovery Manager® can be applied to the Tivoli CCMDB, to automate workflows and policies for patch distribution, service request fulfillment, license reclamation and more—to align IT infrastructure management with business priorities. Establishing an “end-of-life” strategy for each of the personal databases and spreadsheets discussed earlier, must be included in the new environment planning and discovery activities, to avoid perpetuating disparate data.

IBM IT asset discovery solutions provide:

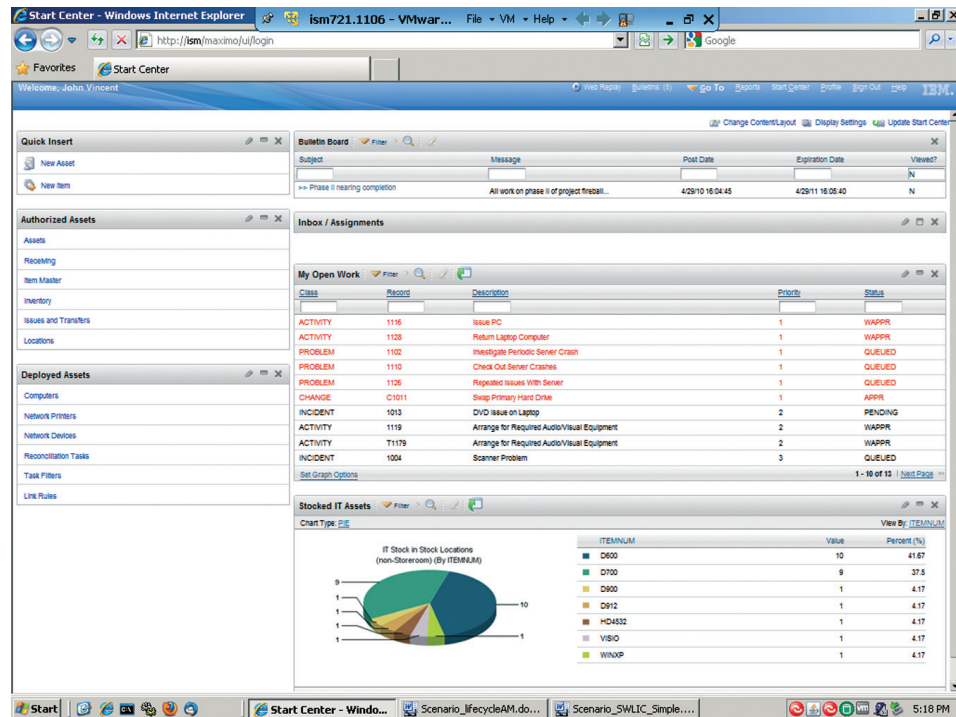
- Discovery and identification services for distributed platforms.
- Automated monitoring of software usage and trends.
- Detailed information about license usage for virtual environments.
- Accurate, timely reports about inventory and usage.
- Automatic discovery and identification of IBM and third-party software running on the z/OS platform.
- Visibility into asset dependencies.
- The ability to do relationship mapping.

Ensure Service Request visibility into configurations and changes

Once the discovery strategy is in place, it is essential to ensure service requests have visibility into asset configurations and changes to avoid performance degradations and downtime. IBM IT asset management solutions are designed to work cohesively together, to link data from the service desk to the asset inventory to provide deep understanding of configurations and changes, and to help proactively prevent service problems. One way that linking the service desk to the IT asset management system improves performance is by enabling service desk personnel to see what is installed, including applications, memory, patches, etc., thereby helping to speed service request cycles and resolve asset problems. This linked information is equally valuable in providing asset trend data—revealing, for instance, habitual and repeated asset problems—to support informed decision making during the acquisition and disposition stages. By combining information from Tivoli Asset Management for IT, IBM Tivoli Service Request Manager and Tivoli CCMD, IBM solutions deliver robust tools for managing service asset and configuration management and incident and problem management.

Enable Service Catalog linkages

It is essential for organizations to understand service request frequency and other key service metrics that can indicate historical trends and help flag asset problems. IBM IT Asset Management solutions enable organizations to link a service catalog to service requests by connecting data from Tivoli Asset Management for



IBM IT asset management solutions provide an end-to-end view that helps administrators understand the status and health of deployed assets throughout the asset life cycle.

IT with Tivoli Service Request Manager. The latter delivers an integrated service desk and service catalog to automate request fulfillment ranging from password resets to server provisioning and application upgrades. This self-service feature not only enables users to request services without IT involvement, yielding a significant time savings, it also provides a method by which organizations can track service requests and related service problems. In addition, this information can be used to help organizations establish and adhere to business policies for asset

upgrades and replacements, to ensure that the enterprise is following procurement procedures related to approved suppliers and costs, and helping to:

- Prioritize the reliability of products and vendors utilizing service problem history.
- Increase service levels and employee productivity by prioritizing service requests via root cause analysis.
- Ensure business policy enforcement related to purchases and upgrades.
- Link deployed assets to active service agreements to prevent costly outsourcing for maintenance and repairs.

Acquisition: Making informed, compliant asset contract and asset procurement decisions

Because acquisitions directly affect the bottom line, organizations need thorough visibility into the asset inventory and asset performance during this stage. Any opportunities for cost savings must be identified and, when possible, converted into business policy to govern future purchases. Organizations must be able to answer questions such as:

- Are there assets that go unused in the organization?
- Are there assets that are simply underutilized and could be deployed to other users or virtualized to optimize usage?
- Have the costs of maintenance outweighed the asset's usefulness to business operations?
- Is there a warranty attached to an asset, making it possible to repair, rather than face replacement costs?

IBM asset management solutions address these questions by providing full visibility into asset deployment and usage, as well as their associated maintenance, warranty and service contracts. These solutions also enable organizations to verify compliance with procurement processes and approvals, and to reconcile purchased assets against invoices, purchase orders and the original purchase contract. IBM IT asset management solutions help before, during and after the procurement process to track asset inventories and licenses, match assets to service agreements and contracts, and track asset performance and costs by monitoring service request frequency.

Management: Manage inventoried assets through automated reconciliation, performance monitoring and compliance

Effective, ongoing IT asset management requires organizations to be able to reconcile discovered assets to purchased assets. In addition, all asset installations, moves, additions and changes (IMAC) must be carefully tracked and recorded in order to know exactly what exists, where it is (within the organization's IT infrastructure and within the asset life cycle) and who uses it. IBM solutions provide information into all deployed assets across the infrastructure, delivering a holistic view that supports proactive, informed management policies.

Realize the benefits of software asset management

Because manual asset tracking is inaccurate and time consuming, it's also expensive. IBM solutions enable organizations to automatically collect accurate information about software inventories, associated hardware and software use across both distributed and mainframe environments, and to support software license management across physical and virtual environments. IBM solutions also detect bundled software and provide guidance on software that may be bundled to save money. To maintain audit readiness, organizations can use IBM solutions to build customized software compliance reports and dashboards and use out-of-the-box reports to gain visibility into software usage and usage trends.

Maintain compliance with license entitlements

Preventing license compliance violations and preparing the organization for both internal and external/regulatory audits is another important aspect of asset lifecycle management and a means of avoiding unnecessary costs. IBM IT asset management solutions provide support for comprehensive software license and contract management across virtual and physical environments, with dashboards and reports delivering information on up-to-date inventories and licenses to enable audit-readiness. In addition, IBM solutions help track and manage contracts and entitlements to provide a deep understanding of software agreements, which can help improve negotiation leverage with vendors. Further, organizations can use IBM solutions to analyze software inventory and software use while mapping this information to entitlements to determine compliance risks.

For instance, under-purchased licenses are a common dilemma in large organizations in which IT assets are widely dispersed and often virtualized (and, therefore, shared among multiple users). Yet penalties for license misuse can be steep. IBM asset discovery solutions, including Tivoli Asset Discovery for Distributed, enable organizations to clearly visualize the licensing tied to all deployed assets, helping them understand which applications are installed and whether they are properly licensed.

Reconciling license inventories to deployed licenses is uniquely challenging within z/OS environments, since z/OS products are shared by users and business units. However, organizations that run IBM System z mainframes can automate discovery, identification and management of software, along with vital usage information, and combine this information with other

IBM IT asset discovery solutions. IBM Tivoli Asset Discovery for z/OS is specifically designed to gather data and to play a key role in managing the complex licensing agreements and contracts for enterprise-class computing. It enables organizations to link collected data with similar data from Tivoli Asset Management for Distributed and to add it to the inventory, contract and procurement information managed by Tivoli Asset Management for IT, thereby more effectively identifying over- or under-licensing issues and maintaining compliance while reducing overhead costs.

For organizations using IBM Passport Advantage® PVU-based software products, IBM License Metric Tool is a no-charge offering that helps maintain compliance by determining the number of processor value unit (PVU) license entitlements (full and sub-capacity) of each installed Passport Advantage PVU-based software product, along with an inventory of where those products are installed on the network.

Control IT asset costs

In a period when IT is continually charged to do more with less, reining in asset costs has taken on a razor-sharp focus. IBM IT asset management solutions can help organizations understand both entitlement information and operational status, by combining information from Tivoli Asset Management for IT with Tivoli CCMDB. In addition, IBM solutions enable organizations to see whether an asset contains installed, but unused (and wasted), software by drawing on information from Tivoli Asset Management for IT, Tivoli Asset Discovery for Distributed and Tivoli Asset Discovery for z/OS.

IBM solutions also enable organizations to manage and track all the financial information relevant to assets, including procurement, contracts, licenses and vendors, and take this information a step further to design software asset procurement processes that can put a halt to unauthorized purchases. Organizations can use IBM solutions to access up-to-date asset cost data to reconcile with ERP financial systems, streamline vendor payments and enable better planning and expense control.

Improve asset performance

Monitoring asset performance is essential in understanding how assets may be affecting business services and whether the asset should be maintained and repaired or retired to reduce a drain on the IT budget. IBM IT asset management solutions can help an organization's visibility into how an asset is performing. By linking information from Tivoli Asset Management for IT to Tivoli Service Request Manager, organizations can see which assets are garnering the most service desk requests. In addition, automated impact analysis within Tivoli CCMDB provides fast access to critical data that could cause outages due to change.

Automate cross-platform patch management for security and performance

Knowing which assets have received patches, which need to be patched and which have the prerequisites required to receive a patch is essential not only to maintaining service performance by avoiding downtime, but also to securing assets across the organization. But it is difficult to visualize which assets have received critical security patches without a patch management system, forcing many organizations to employ manual patching measures—often relying on end users to deploy the patch. IBM can help organizations achieve fact-based decision making for patch deployment, ensuring security updates in a way that minimizes downtime.

For instance, IBM Tivoli Endpoint Manager enables organizations to consistently visualize, across all platforms and through a single console, which machines have been patched, which need patching and which contain the required prerequisites for a patch. An intelligent agent that resides on each endpoint recognizes which patches are required for that specific machine, based on the endpoint's unique hardware, operating system, configuration settings, applications and patches already installed. The agent then automatically retrieves and applies only the relevant updates that are needed for that specific endpoint. Tivoli Endpoint Manager provides comprehensive capabilities for delivering patches for Microsoft® Windows®, UNIX®, Linux® and Mac operating systems, third-party applications from vendors including Adobe®, Mozilla, Apple and Java™, and customer-supplied patches to endpoints. Tivoli Endpoint Manager can be used as a standalone solution or as part of an enterprise-class management infrastructure.

Understand key asset metrics

Effective metrics monitoring and reporting enables organizations to gain real insight into asset performance, costs and even the asset inventory itself. IBM IT asset management solutions helps organizations to measure, report on and make informed decisions about IT assets by answering questions like:

- How much has the organization reduced license compliance costs?
- How many lifecycle workflows have been enabled?
- How much has the service request cycle time been reduced?
- Are asset inventories and costs being accurately tracked?

Disposition: Planning and managing an asset's end-of-life

Just as assets must be properly acquired and maintained, it is essential to effectively manage asset retirement. Yet many organizations use manual tracking methods—which are inaccurate at best and costly at worst. To effectively control asset costs and meet compliance requirements, organizations must be able to understand when assets should be disposed of or lease-returned, which software and licenses are installed on the assets, and how to reclaim the licenses. Once the asset is retired, organizations must also be able to ensure adherence to corporate, regulatory and environmental disposal requirements. IBM IT asset management solutions enable organizations to establish a comprehensive asset data source map to the asset database, as well as a map to end-of-life plans for existing assets as they are replaced, returned or retired.

For instance, maintaining an accurate asset inventory is key to end-of-life management. Using combined information from Tivoli Asset Management for IT and Tivoli Asset Discovery for Distributed, organizations can automatically discover assets and generate reports to deliver comprehensive views into all device installations, including hardware, associated configurations with databases and servers, and the software stack.

In addition, license reclamation is often overlooked as a source of significant cost savings because of an organization's inability to adequately discover and track it. License reclamation is also especially important when combining large pools of assets, such as during a merger or acquisition. Using information from Tivoli Asset Management for IT and Tivoli Asset Discovery for Distributed, IBM solutions deliver the visibility and control to help organizations understand which software entitlements may be reclaimed when the asset is retired and allocate the licenses to a new resource when needed.

Extending Asset Management in the data center environment, today there is a need of an integrated platform for support of seamless facility management related business processes. This includes managing the physical infrastructure of the data center including physical assets (IT and non-IT), facilities, space, power, cooling, cabling and network connectivity.

Integrating IBM IT Asset Management solutions with IBM Maximo® Data Center Infrastructure Management helps organizations bridge the asset and facility management domains. Some of the key benefits of this converged asset management solution are:

- Improved visibility of the data center infrastructure—what do I have, where is it, who owns it and how does it connect
- Better understanding of the impact of moves, adds and changes on space and power capacity constraints
- Optimizing the infrastructure to extend the life of the data center and reduce operational cost
- Mitigating risk of system downtime by understanding infrastructure and how moves, adds and changes can be supported
- Providing data center and facilities management a common view of the infrastructure

Summary

IBM IT asset management solutions bring previously opaque IT asset views into clear focus. Infused with integrated service management capabilities, IBM solutions deliver visibility into asset locations and status, control across the asset life cycle, and automation to remove wasteful and error-prone manual processes. The result is lower asset costs, faster responsiveness to business requirements and improved service performance, helping to support IT alignment with business goals.

For more information

To learn more about how IBM IT asset management solutions deliver the visibility, control and automation needed to lower costs, mitigate risks and improve service performance, contact your IBM representative or IBM Business Partner, or visit ibm.com/software/tivoli/solutions/it-asset-management

IBM Global Financing

Additionally, financing solutions from IBM Global Financing can enable effective cash management, protection from technology obsolescence, improved total cost of ownership and return on investment. Also, our Global Asset Recovery Services help address environmental concerns with new, more energy-efficient solutions. For more information on IBM Global Financing, visit: ibm.com/financing

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