Infrastructure resource management: A holistic approach

Introduction

“Forward-thinking organizations are taking advantage of Infrastructure Resource Management technology to achieve significant operational and financial efficiencies within their enterprise.”

—Aberdeen Group

The IT portfolio, once viewed as a secondary concern, is now seen as a critical business driver that must be well managed, tightly aligned and highly efficient. Mergers and acquisitions, decentralization and a spate of unexpected competitors are all underscoring these challenges. CEOs, CFOs and CIOs alike are learning that in the world of e-business, their companies’ IT assets will be key to supporting change, reducing costs, heightening efficiency, opening new channels and sustaining customer relationships.

From help desk to software distribution to license management, asset management is today expanding beyond traditional IT to address the enterprise at large. Infrastructure resource management—the next generation of asset management solutions—does just that.
Trends and directions: Understanding the environment

The return on your technological investment depends on effectively managing enterprisewide change while continuing to assure reliable and wholly available service. At the same time, gaining control over the total cost of ownership is critical if IT is to boost the bottom line rather than bury it. The key is to adopt a multidisciplinary approach—one encompassing integrated resource management techniques designed to optimize the usefulness of an infrastructure while reducing expense.

The foundation: IT asset management

As an organization’s capabilities broaden and develop, so do the costs and complexities. Managing a traditional bricks-and-mortar business with a basic Web presence is relatively low-risk, whereas the impact of e-commerce and other e-business initiatives can be substantial. As these transformations become increasingly requisite, IT asset management is fast becoming a critical component of overall e-business administration.

“The complexity, interdependence and business need for the IT infrastructure has become so critical that it must be managed as a whole.”

—GartnerGroup
The four distinct stages of e-business evolution

**Publish**
- Information on the Web
  - Information flow one-way
  - Low risk to system

**Interact**
- Two-way information sharing
  - Customer is known by name or by behavior

**Transact**
- Business on the Web
  - Exchange of goods and services
  - Customer perceives transaction as seamless
  - May require manual intervention to complete

**Integrate**
- Information sharing with customers and supply-chain partners
  - High risk to systems

Increasing infrastructure impact

Increasing cost
Effective IT asset management oversees every level of the IT organization. The Giga Information Group breaks these responsibilities into four distinct data categories: the characteristics (hardware data), configuration (software information), contracts (service and warranty information) and costs (financial data) of all IT assets. By utilizing the technical and financial data comprising these “Four C’s,” companies can begin to fully understand the nature of their organization's technology resources—from requisition to disposal—so that intelligent management decisions can be made.

**The new model: Infrastructure resource management**

Infrastructure resource management, or IRM, is a highly refined, tightly integrated and strategically focused view of asset management. IRM expands the responsibilities of asset management—taking into account all of an organization’s assets and capital equipment investments to heighten efficiencies, boost productivity and end-user satisfaction, enhance security and grow profitability throughout the enterprise.

---

**The Four C’s of Asset Management**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>hardware data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration</td>
<td>software data</td>
</tr>
<tr>
<td>Contracts</td>
<td>service and warranty information</td>
</tr>
<tr>
<td>Costs</td>
<td>financial information</td>
</tr>
</tbody>
</table>

“Very much like a portfolio of financial assets, the value of any one asset is secondary to how that asset provides value to the whole portfolio.”

—Giga Information Group
An effective infrastructure resource management solution attends to everything a company owns and uses, including IT-based laptops, desktops, servers and printers, as well as networks, physical facilities and mobile e-business assets such as phones, pagers and PDAs. Using—but expanding upon—the same critical data groups emphasized in asset management, IRM regulates leasing, procurement, acquisition, inventory, service and maintenance, license metering, upgrades, distribution, customer self-service and support, and more.

For example, as the supply chain—from procurement, warehousing and inventory to distribution and delivery—becomes a more critical link between companies and their e-commerce and e-business customers, an IRM solution can assist employees and customers in tracking purchases from order to receipt and ensuring accurate delivery dates. These capabilities rely on supportive, carefully aligned and well-managed IT and supply-chain infrastructures, plus solid coordination of onsite activities.

By providing “big-picture” oversight, IRM can speed the integration and enablement of sprawling e-business enterprises—while providing assurance of continuous availability, reliability, flexibility and scalability. Although deploying such a comprehensive solution can be a daunting proposition, the results can be dramatic.

Key technical components of integrated resource management include:

- Discovery Tools for finding all assets that are installed or being utilized at any given time
- Help Desk Tools to support the end user by way of change management, problem resolution and more
- Ownership Management Tools that track contractual, inventory, licensing and legal information related to an organization’s assets.
Visions and value

Effective resource management can translate into significant cost savings, such as:

- A bank, saving US$2 million through invoice verification
- A telecommunications company, cutting US$600 thousand by cancelling duplicate software licenses
- A tobacco company, recovering US$600 thousand by correcting lease and invoice errors

Where are your company's cost exposures? What might you save? IRM can provide the answer.

Driving IRM: The call for change

As the global marketplace continues to expand and the reliance on multichannel communications—Web, wired and wireless devices alike—increases, organizational infrastructures are fast becoming decentralized and, as a result, less controlled and less secure. The narrow focus on IT asset management must therefore be extended to include the overall infrastructure—from procurement, depreciation and disposal to leasing, shipping and upgrading all computing and noncomputing assets. IT is merely the structural skeleton for what comprises an entire infrastructure—one that reaches across and beyond the enterprise. While desktop inventory and tracking are still fundamental, total systems management is now crucial, and should include an asset inventory repository of all non-computing assets.
Defining IRM: Beyond asset management

An extended enterprise must attend to life beyond the desktop — effectively managing network assets, facilities, mobile assets and more by leveraging help desk tools, discovery tools and owner-management tools. Accurate and comprehensive IRM data can contribute to an available, reliable, supportable and flexible infrastructure — a crucial requirement of any successful e-business enterprise. However, IRM can only help if the approach is an integrated one that generates standardized and wholly available data that is then applied to strategic organizational operations and synchronized with other enterprise-wide management solutions.

Leveraging IRM: Overseeing the enterprise

IRM uses comprehensive inventory and tracking techniques to perform broad-based, highly integrated strategic planning to closely align your infrastructure with your business objectives. But Norbert Kriebel, an analyst with Giga Information Group, warns that "all asset management solutions are tactical until strategic plans and processes are included in the implementation. Effective asset management is more dependent on the successful implementation of asset management practices than it is on asset management technology." To be effective, your IRM solution must employ the aforementioned discovery tools, help desk tools and ownership management tools, while ensuring alignment of these components via a centralized, master repository. It must also focus on acquiring and leveraging quality data and providing a seamless interface to other business systems. Without these components, your resource management efforts will be illogical and fragmented.

That said, an IRM solution that is both visionary and practical in nature — that leverages the best available techniques and tools to achieve financial and functional management of the entire enterprise — can speed e-business development, help ensure end-user satisfaction, optimize the IT infrastructure and provide continuous availability of your organization's content and services. In this day and age, IRM is an evolving concept too influential to be ignored.
The IBM answer: End-to-end IRM for the enterprise

An effective IRM solution is dependent upon top-down oversight, executive support and much forethought. The broad capabilities of IBM Global Services make all of this possible. An IBM IRM solution can be tailored to your organization through careful assessment and consultation, integrated practices and applied strategies.

The process

IRM is not a one-size-fits-all proposition. It is at once comprehensive and specific, broad and deep. IBM is prepared to help you enhance your IT infrastructure by facilitating a threefold process, beginning with rigorous consultation. This early, evaluative stage will include an assessment of your current infrastructure and your total cost of operations. The second step is one of implementation, in which IBM IRM strategists will work to discover your resource management needs and provide strategic design for your IRM solution. Finally, IBM can oversee and help you put into practice your in-house or out-tasked resource management initiatives.

The possibilities

IBM brings to each IRM engagement an established, holistic methodology and a broad spectrum of services and skills from across IBM Global Services—all supported by a worldwide team of industry-leading business partners offering best-of-breed resource management tools. More specifically, as an IBM client, you can benefit from an array of world-class technical and human assets, including:

- Consulting, planning and design
- Manufacturing and procurement solutions
- Installation and integration services
- Continuous operations services
- Technical support
- Finance offerings.

IRM is a concept dependent upon multiple competencies—a fact that makes IBM uniquely qualified and prepared to deliver comprehensive IRM solutions today.
IBM Global Services has a broad scope of resources dedicated to integrated technology and e-business infrastructure services. We have created a comprehensive package of strong support services that complement the dynamic capabilities and specialized functions of the IBM @server, industry-leading system infrastructure, and full range of products. Today, IBM is partnering with leading companies the world over to provide scalable, end-to-end solutions for infrastructure resource management. Two of these companies are Peregrine Systems and Remedy Corporation, both providers of integrated software for IT service management and infrastructure resource management.

Remedy Corporation offers a full, integrated suite to manage an IT service organization—including help desk, asset management, change management, and SLA. The Remedy software suite runs on a single architecture and is available for both UNIX® and Windows NT® platforms. Remedy, an established premier partner of IBM Global Services, also has years of experience with integrating Tivoli® Enterprise systems and network management products. IBM Global Services, a licensed reseller of Remedy software, provides consulting and implementation services for IT management and support solutions using Remedy applications. We can help install, automate or consolidate help desks or integrate asset and change management with problem management into a service management solution.

Peregrine Systems recently acquired the Tivoli Service Desk suite of products and is expanding its marketing and sales relationships with IBM Global Services. Peregrine’s Infrastructure Management Group (IMG) provides software solutions to manage the entire lifecycle of an organization’s assets, from IT equipment and fleets of vehicles to a company’s intangible knowledge assets. Their ServiceCenter and AssetCenter solutions integrate with Tivoli Enterprise systems and network management products. As a premier service delivery partner for Peregrine’s product offerings, IBM Global Services will market, sell and provide services for Peregrine’s infrastructure management products to organizations globally. IBM provides infrastructure consulting and managed services using Peregrine products in both infrastructure management applications and e-market enablement to hundreds of customers around the world.

“Indeed, greater than 70% of current enterprise service management evaluations get narrowed down to Peregrine and Remedy.”

—META Group, December 15, 2000
IBM Global Services

Working with IBM Global Services, you will have the advantage of an end-to-end infrastructure resource management provider—one with demonstrated e-business experience, broad-based capabilities and strategic alliances with the world’s premier solution suppliers. At your service with IBM Global Services:

- Proven methodologies, including asset management assessment, help desk consulting, IT value/total cost of ownership, service request and asset management transition

- Leading-edge technologies, including e-procurement solutions, remote delivery, hosting services, and fleet and facility tools

- World-class expertise, supplied by more than 140,000 consultants, technicians, support specialists and e-business experts working in 164 countries around the world.

Financing

IBM Global Financing offerings are available to help you implement IBM Global Services projects. Flexible payment structures can help you spread upfront costs and better match your payments to service benefits.
Summary

Today’s complex e-business enterprises rely on sophisticated and dynamic IT organizations. The emerging discipline of IRM—managing all corporate assets from acquisition through retirement—can help speed ROI, minimize the total cost of operations, and maximize the abilities and availability of the infrastructure. Truly holistic IRM manages resources enterprise-wide—by way of problem and change management, network integration, financial asset management and more—to create new business value. To ensure integration and effectiveness out of such an all-encompassing strategy, companies should select a world-class service provider like IBM—a partner fully capable of designing, implementing and integrating IRM oversight across the organization.

For more information

To more fully explore how IBM Global Services can help your organization execute a comprehensive IRM initiative, visit:

ibm.com/services


4 ibid.

5 ibid.

6 Kriebel, Norbert. ibid

7 Shoup, Larry. IT Asset Management: The Big Picture, Janus Technologies, Inc., 1999

8 Kriebel, Norbert. ibid.

8 META Group.