

The ROI in IT Asset Management: A Business Case for Utilizing Intelligent Asset Management Technology

Executive Overview

As companies continue to absorb the flow of electronic data in astronomical quantities, greater attention is being paid to the infrastructure that holds the data and the escalating costs of its management. Traditionally, CFOs have only calculated the investments in IT hardware, software and related necessities, including networking, mobile, telecommunications and services that are critical in maintaining a higher-performing data center. Now, with growing issues in data security, compliance assurance, sustainability and capacity planning, businesses are under pressure to deploy effective management systems to reduce costs while identifying and eliminating inefficiencies. The data center has become a strategic advantage, and differentiator, in most industries.

“IT asset management is a fundamental discipline that enables improved cost control and truer understanding of IT’s business value,” stated Gartner¹.

Companies that have embraced IT asset management technology have realized many immediate and long-term advantages including direct, indirect, and opportunity cost savings. Specifically, the implementation of asset management systems has helped eliminate time-consuming manual audits, recover lost assets, improved asset reconciliation and gained the accurate data needed to more strategically plan for future data center needs. Accuracy and cost reduction are tangible results that every company is striving for from IT vendors.

This white paper outlines both the immediate and ongoing savings from multiple avenues associated with the implementation of an intelligent asset management system, including the ROI of the ongoing expenditure.

¹ Gartner IT Financial, Procurement & Asset Management Summit 2011 (http://www.gartnerinfo.com/bam19/evtm_111_02_BAM_DM2_online_bro.pdf)

Direct Cost Savings from IT Asset Management

On the subject of maximizing value from existing and future IT investments with asset management technology, Gartner² stated: “Enterprises that systematically manage the lifecycle of their IT assets will reduce cost per asset by as much as 30 percent during the first year, and between five and 10 percent annually during the next five years.” This estimate plays out in real-world case studies — and can even be described as conservative in many cases.

The most direct, immediate, and long-term cost savings from intelligent IT asset management technology is the elimination of manually tracking asset inventory for audits, including the reconciliation of assets. These activities consume hundreds of man-hours and are commonly conducted at a minimum of twice a year. Additional direct savings can be realized by eliminating costs for lost asset replacement.

The following examples calculate the true ROI realized for three companies over a period of five years after installation of an intelligent IT asset management system.

While the cost incurred, and time spent, performing a manual inventory collection on numerous occasions throughout a year are significant, that cost can be dwarfed by the miscalculations of a manual process. Human error is part of doing business but when the outcome can be the loss of customer data, the potential legal ramifications of an incorrect audit, or the impact on market competitiveness due to the inability to analyze that data, the costs escalate rapidly.

² “Winning Asset Management Strategies: How to Maximize Investments and Reduce Total Cost of Ownership” Gartner, 2003 (http://www.gartner.com/research/asset_47450.jsp)

	High-Tech Company A	Financial Services Company B	High-Tech Company C
Data Center Specifics	Multiple Data Centers <ul style="list-style-type: none"> • 11,000 Racks • 255,000 Assets 	Multiple Data Centers <ul style="list-style-type: none"> • Global data center footprint • Largest is 200k sq. ft. • 5,000 Assets 	US Based Data Centers <ul style="list-style-type: none"> • 6,000 Racks • 30,000 Assets
Issue	<ul style="list-style-type: none"> • 71% Inventory accuracy • 13.8% of asset movement was not accompanied by a change ticket 	<ul style="list-style-type: none"> • High costs of manual or semi-automated inventory that resulted in inaccuracies and lost assets. 	<ul style="list-style-type: none"> • \$1MM+ in asset inaccuracies and labor charges with passive RFID system • No visibility of assets in Colo's • Requirement for granular and accurate data to make adhere to corporate sustainability policies
Previous Methods (Process and Cost)	<ul style="list-style-type: none"> • Manual • Passive RFID • 567 man days per year • \$8MM manual annual costs 	<ul style="list-style-type: none"> • Inventory processes varied between groups and locations. • Manual barcode scanning and huan readable tags. • 118 man days = \$134k 	<ul style="list-style-type: none"> • 1,900 man days, for manual location of lost assets, repository updates and including 1,100 days for reconciliation. • \$1.7MM
RF Code Application	<ul style="list-style-type: none"> • Installed asset tags on all data center assets: servers (U and Blade), racks and big iron • Installed 250,000 asset tags and will continue with another 50k+ • Rack level granularity 	<ul style="list-style-type: none"> • Installed environmental monitoring solution prior to becoming an asset management customer • Asset tags installed on all data center servers, switches and big iron. • Rack level granularity 	<ul style="list-style-type: none"> • Environmental and asset management solutions installed in Colo's, data centers and containment systems.
ROI	9.3 Months	11.7 Months	12.9 Months
Estimated 5 Year Savings	\$42.3MM	\$585,000	\$7.89MM

In the table above, the issues faced by each company were the result of utilizing a manual system for tracking assets and therefore creating a direct correlation to costly man hours and inaccuracies. According to Rick Schuknecht, vice president of global networks for Uptime Institute, 73% of data center downtime is caused by human error. Additional manual Asset management processes that can drive higher costs also include:

- **Loss of Data.** Without exception, the loss of data residing on an IT device is the worst possible outcome of not having automated asset tracking. The potential legal, PR, commercial and regulatory implications are daunting and there is a long list of financial, e-commerce, healthcare, IT and other large organizations who have suffered the consequences of limited, or no, physical asset tracking and security.
- **Physical IT Asset Inventory Collection.** As noted in the examples, any time staff is utilized to conduct a manual task, the time and costs associated with these physical activities can quickly escalate. Even semi-automated technologies and

processes, such as barcodes and passive RFID, require human interaction and therefore are less cost effective than a fully automated process.

- **Physical IT Asset Inventory Reconciliation.** It's not uncommon for the manual reconciliation of even a small percent of missing assets to take longer than the audit itself. In fact, it's the single most important reason that fixed assets audit hours exceed budget. In the example above, Company C spent 1,100 days out of 1,900 days on reconciliation efforts alone.
- **Manually Locating Misplaced IT Assets.** The equipment within a data center is constantly in flux. Higher capacity devices may replace older equipment or changes in projects require hardware to be moved between racks. Regardless of the reason, without a system that offers continuous and accurate data about an assets location, the impact of assets that have gone astray can be costly.
- **Manual IT Asset Repository Update.** An asset repository, such as data center infrastructure

management (DCIM) software, is highly dependent on automated data in order to have a consistently accurate account of all assets. Traditionally, any discrepancies identified in the inventory versus the repository data would require manual research to determine the issue before an update is implemented.

- Replacement of Misplaced IT Assets. Depending on the asset itself, the cost of replacing an asset can vary tremendously. Since a manual system of asset management only supports the likelihood of asset loss through human error, replacement costs will continue to be a factor for data centers that do not deploy an automated system.
- Penalties for Late Leased IT Asset Return. The costs related to late returns of leased IT assets are a significant expense for large enterprise companies³. As data centers continue to grow at their current speed, leased assets become more prevalent and therefore asset management needs to be accurate, automated and on time; otherwise, penalties begin to outweigh the value of leasing the assets in the first place.

Below is an example of the real cost savings achieved by two companies with deployment of an automated system for asset management.

In each situation, the transition from a system that relied on manual processes for asset tracking to an automated system provided a substantial cost savings resulting in an ROI of less than 12 months.

³ How IT Can Increase Flexibility by Leasing IT Assets: Posted by Jim Noyes on Mon, Jan 07, 2013

	Chicago Mercan- tile Exchange	IBM
Assets	4,000	255,523
Manual Costs: Year 1	\$134,333/ 118 Days	\$8.65MM/ 567 Days
Automated Costs: Year 1	\$130,770	\$6.07MM
5 Year Costs Savings	\$582,729 11 month ROI	\$42.23MM 9.3 month ROI

Indirect Cost Savings from IT Asset Management

In addition to the significant immediate and long-term direct cost savings from deploying an intelligent IT asset management system, there are also several indirect cost savings and assurances including; greater accuracy and regulatory compliance, 100% visibility of IT assets, and assured security.

One of the greatest values to a technology-dependent organization lies in its dramatically improved ability to efficiently deploy assets according to capacity availability. Strategically, this is essential when forecasting long-term IT spending, large infrastructure investment and outsourcing services. Here is how these indirect, but significant, savings impact IT departments.

- Complete IT Asset Inventory Accuracy. Automatically managing IT devices removes the top reason for audit errors and regulatory fines — human error. By replacing the manual audits with automation, IT departments gain not only the human resource cost savings, but also the assurance of regulatory compliance. With the high cost of regulatory fines, this represents a

“Auditors are looking more closely at how access to the huge data stores in these systems is controlled, and enterprises are being pressured to adopt more aggressive and expansive data controls”

“Database Activity Monitoring Is Evolving Into Database Audit and Protection,” Gartner, February 2012

huge opportunity to cut out a potential financial loss. What's more, with manual systems, the moment audits are completed the information is already out-of-date, because devices are moved, procured, and retired daily. An automated system ensures real-time reports on every device location and status.

- **100% Real-Time Visibility of IT Assets.** Lack of visibility of all IT devices opens up multiple points of risk every day. As is common, devices are regularly moved around, from rack to rack, room to room, and facility to facility. Devices can go missing for months. Additionally, they can be stolen from facilities and vehicles during transport. Companies incur costs in multiple ways, from misplaced assets and device replacement to steep regulatory fines.
- **Improved Offsite Data Center Management (Co-location - CoLo).** As the costs of maintaining “owner-operated” facilities escalate, there is a growing number⁴ of companies using CoLo's, creating its own unique asset visibility issues. Those devices are, in the eyes of the regulators and auditors, still the responsibility of the owner. Depreciation, replacement, movement and loss need to be understood when they happen.
- **Enhanced Asset Lifecycle Management.** Companies are spending considerable resources to fight the security threats bombarding them from outside its walls, but many security issues are occurring inside the walls — in the form of misplaced or stolen, equipment. Because the data on these missing-in-action devices is critical to a company's business operation, regulatory compliance and public image, attention also needs to be placed on internal loss prevention strategies. Since intelligent asset management solutions track devices for their entire lifecycle, the problem — and the high cost — of missing devices is solved.

Opportunity Cost Savings from IT Asset Management

Device intelligence also gives IT executives several cost-saving opportunities to make informed strategic decisions on data center operation and purchasing, capacity planning, human resource deployment, and outsourcing. Leveraging these opportunities will elevate IT's ability to meet high-level directives to lower costs and increase efficiency — today and into the future.

- **Accurate Asset Planning.** According to industry experts⁵, assets can change location as much as 20 to 30 percent each year. Instead of reactively making IT device purchases to address business expansion or lost assets, the IT department will have a solid grasp of the devices currently in house, their location and status. With this knowledge, they'll be able to make informed growth decisions that map closely to current and future data service needs. Such foresight greatly increases IT financial efficiency and saves unnecessary costs.
- **Optimized Capacity Planning.** Lack of knowledge of assets and their environment leads to overprovisioning of hardware and low capacity utilization. According to Sherman Ikemoto, general manager of Future Facilities, often 30 percent or more of data center capacity is lost in operation. The steady fragmentation of the data center – growing inefficiencies caused by lack of information and control – reduces the ability to understand which asset is capable of taking a higher workload. This is a financial challenge for IT management for several reasons, including the partial return on the capital expenditure and the need to raise additional capital to add capacity years sooner than originally planned. Automated asset management gives IT managers the ability to understand asset location in real-time mapping this to potential capacity availability, so they can significantly boost capacity usage to maximize their current investment.

⁴ “Demand for ‘Cloudy Colo’ Services on the Rise” Posted by IT Business Edge (<http://www.itbusinessedge.com/slideshows/demand-for-cloudy-colo-services-on-the-rise.html>)

⁵ “Asset Vulnerability: The Six Greatest Risks Facing IT Asset Inventory and Management – and the Single Automated Solution Whitepaper,” RF Code, 2013

- **IT Personnel Security and Traceability.** Data centers are the core of business operations and are managed by highly skilled teams. The time spent carrying out audits, finding lost equipment, manually planning new IT deployments and monitoring the movement of offsite, leased and assets under maintenance, reduces the time spent on proactively supporting the business. Automated asset tracking and status reporting in real-time, saves many hours of manual labor. Savings on unnecessary IT personnel tasks by using automated systems are in the hundreds of thousands and correctly deployed teams provide higher quality of service.
- **Integrated Management.** Integrating asset tracking and management with other data center controls produces the data required by the IT and financial departments, as well as the executive level for reporting and strategic planning purposes. Environmental conditions can be associated with asset location which, in turn, is sending real-time data to BMS and similar infrastructure control systems. Data virtualization is also accurate, as when assets are moved or initially set up, the asset's location and configuration is associated with the tasks that area of the data center is required to perform.

Conclusion

Asset management means more than simply knowing what the company has purchased. As the need for data centers grow, propelled by the massive growth in consumer-driven data, it is essential that efficient and fiscally responsible processes are in place to accurately manage IT expenditure and company exposure.

Understanding the what, where and how about assets enables every level of the company to operate securely, compliant and at the highest performance. Strategically, a company can plan new infrastructure, establish plans to outsource service to Cloud and CoLo providers, attain sustainability and energy

demands and create a proactive, competitive IT organization.

Asset management needs to be integrated with control systems around it to be most efficient. ROI is fast, reducing time, cost and effort while increasing the productivity of IT personnel. As enterprises grow their "Big Data" consumption by between 40-60% per year, capacity is at a premium and thresholds need to be set high to maximize all potential power, space, facility and system utilization.

There are many cases of poor asset management costing companies millions of dollars. Senior executives are culpable for those inefficiencies.

Explore the benefits to you organization and receive the ROI and security being experienced by many RF Code customers.

About RF Code

RF Code is the world's fastest growing, leading provider of distributed IT environmental monitoring and asset management solutions. Its patented tracking and sensor technologies are deployed by many of the Fortune 250 and help manage the global data centers of some of the largest IT service providers. RF Code is an essential component of the asset management, risk and compliance assurance and automated control systems in healthcare, IT services, industrial supply chains and natural resources/oil & gas industries. RF Code is a privately held company with investors including QuestMark Partners and Intel Capital. The company is headquartered in Austin, TX, with offices and partners in the UK, EMEA, Australia, Asia and South America. <http://www.rfcode.com>



9229 Waterford Centre Blvd. ♦ Suite 500
Austin, TX 78758

Tel: 512.439.2200 ♦ Fax: 512.439.2199
sales@rfcode.com ♦ <http://www.rfcode.com>

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