

Extending Hardware Lifecycles (Asset Life) – Why This Trend is Gaining in Popularity

By Brent Anderson, Chief Marketing & Strategy Officer, XSi



Purpose

In the last decade, more than 50% of the world's largest companies are now embracing the promise of hardware lifecycle extensions and developing strategies to contain hardware costs, thereby proactively moving toward IT cost optimization objectives. Perceptions have changed, especially in the last eight years, about hardware lifecycle extensions. Because independent hardware support organizations and secondary hardware resellers play a pivotal role in lifecycle extension strategies, this white paper directly addresses the use of these industries as a viable means to containing and optimizing OpEx (Operating Expense) and CapEx (Capital Expense) budgets.

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Growing Interest in IT Cost Optimization

Since the economic heartaches of 2008, combined with the ever-increasing pace of IT advancements, more and more companies are interested in "IT Cost Optimization" as a means of "doing more with less," addressing more business drivers with IT budgets that continue to be diluted.

IT industry analyst firms, like Gartner and IDC, have seen steady growth rates in cost optimization inquiries and have, consequently, been publishing more papers and providing a greater breadth of webinars about this subject. While viewing their published documents often requires a subscription, many webinars are readily available to the public. Here are a handful of the more popular IT Cost Optimization educational tools, along with helpful links directing the reader to their source:

Gartner Published Documents

- [The Gartner Top 10 Recommended IT Cost Optimization Ideas](#)
- [How to Manage the IT Budget Wisely Through Cost and Value Optimization](#)
- [Lower Both Storage Acquisition and Ownership Costs by Using Third-Party Maintenance](#)
- [Forecast Analysis: IT Services, Worldwide, 1Q17 Update](#)

Gartner Webinars (Available without Subscription)

- [10 Key Changes to Drive Business-led IT Value](#)
- [Transform Waterfall Budgeting for Agile Development](#)
- [How to Create and Communicate an IT Cost Optimization Roadmap](#)

Especially true in the last 8-10 years, inquiries to Gartner analysts about IT cost optimization have annually grown at percentages that double or triple the annual growth rates from ten years earlier. "Doing more with less," has become an escalating mantra from both infrastructure teams and procurement, as placed upon them by executive leadership across commercial (all verticals) and federal sectors. The overall pace of IT has quickened to accommodate market changes that include: cloud considerations or mandates, heightened security interest, digital business and IoT (internet of Things) and also, the evolution of OEM tech refresh strategies as marketplace disruptions impact market share.

Here's an interesting quote from Gartner analyst, Christine Tenneson:

"Hardware maintenance is increasingly being considered as a 'non-strategic IT' spending and procurement, with the result being that IT professionals are seeking low-cost alternatives to expensive OEM contracts."

Christine Tenneson, Gartner Doc. ID G00294372

In the not too-distant past, IT hardware was the "sacred cow" with client mindsets about hardware CapEx and OpEx as being "fixed expenses" – immovable. Only modest consideration was given to cost optimization potential for non-critical, non-production assets. Companies have now begun to embrace alternative models that can help optimize expenses associated with IT hardware – even assets in critical production.

ITAM Best Practices Continuing to Evolve

IT Asset Management was a practice, in our opinion, that was very slow to evolve into what it has become today – techniques that truly impact cost containment. Reasons for slow adoption were varied, but there were many causes that made ITAM adoption costly and complicated to incorporate. Some companies had assets distributed across multiple locations (even continents), operational activity was often siloed, the speed of M&A activity outpaced what was possible in data center (or network) consolidations, and so on.

Even in our industry niche, we've likely heard/witnessed some of the same nightmarish stories as have you. I recall a Midwestern company that had 34,000 hardware assets distributed across 17 locations – each data center location having been part of an acquisition. They had never successfully completed a proper asset audit and so we paying exorbitantly for their unintentional ignorance.

They were paying for OEM maintenance agreements for assets that hadn't been powered up for years, paying for software that was no longer being used. They didn't even know where and how to deploy OEM-provided security patches/fixes. Additionally, a grouping of production assets at each location were considered highly critical, so they were put behind DMZs, making auto discovery applications ineffective. It took a four month long program of physical site audits and the deployment of a centralized asset management program to get them back on-track for basic ITAM and phase-one IT Cost Optimization.

Such horror stories are now less frequent than they were eight years ago. Companies are now more likely to and have begun to branch into deeper phases of IT Asset Management. A few of these include Software Asset Management (SAM) and greater focus toward hardware lifecycle extensions. Not all software needs to be upgraded as frequently as it had been, with similar considerations now for hardware infrastructure.

ITAM has driven greater consideration for hardware-application dependencies, thusly an awareness for software assets that can be kept for longer periods of time – at significant savings potential. Evolved ITAM teams are building analyses for physical assets, software assets, virtual assets and hardware-software dependencies. Such analyses are

guiding IT leaders into deeper considerations about asset lifecycles – even lifecycle “extensions” as a strategy to contain costs. Whereas a few elements of production require latest technology to maintain competitive edge, ITAM teams are proving this position need not be true for all production.



Lifecycle Strategies for Non-Production Assets – 2000 to 2013

In the early 2000s, neither Gartner nor IDC were outspoken champions of hardware lifecycle extension strategies or even independent support alternatives, as a cost-containment option. In those days, OEM tech refresh strategies were an acceptable means to gain “bigger, faster, stronger” data center environments. Independent hardware maintenance providers were recommended only for non-production or DR (Disaster Recovery) assets as late as 2010 in a few of their formal publications.

Yet, the drama of 2008 caused a greater percentage of companies to extend asset lifecycles (warding of CapEx investments) and refine OpEx budgets with independent support for both non-production and “select” production assets. While independent support is primarily relegated to post-warranty assets, the analyst community began to realize that a typical data center environment was made up of 20-22% post-warranty hardware assets. Also, knowing that independent hardware support could cut costs by 60%+ from OEM support contracts, analysts began to more frequently recommend independent support for post-warranty systems that were non-production or Disaster Recovery in their function.

In reality, hardware infrastructure teams that adopt independent support models go through a series of phases. They experiment with a few non-critical serial numbers and personally witness the quality of support, expertise and performance. Then, they add a greater and greater percentage of their post-warranty assets to independent support agreements. This is a very normal approach for those that once held their hardware assets to that “sacred cow” status.

Even in 2010, around 50% of the assets maintained by most respected independent providers were indeed production assets. The remainder were DR and/or non-critical assets. So, while the analyst community was conservatively advising, they were advising new entrants, primarily. Indeed, a greater percentage of the independent support adopters had grown comfortable with putting more production assets under independent support agreements, seeing an impressive reduction in savings – without sacrifice to service quality.

Certainly too, from 2013-14, a few major OEMs began graying hardware owners' access to security/firmware patches, unless the hardware owner had a formal support agreement with them. While this may have caused a bit of an obstacle to hardware lifecycle extension strategies, end-users began to see the "game" for what it was and rationalized that most hardware has reached near "stable state" once it had reached post-warranty status.

The validity of "stable state" is especially true by the 4th year – one year following the post-warranty (milestone) date. More of our clients began speaking in the same terms as the independent support and secondary hardware reseller community (e.g. 'n-1 technology' vs. 'n-4 technology'), demonstrating a deeper comprehension for stable state systems. The OEMs' new firmware practices actually served to create a more educated end-user client base. OEM F.U.D. (Fear, Uncertainty & Doubt) tactics frustrated their clients just enough to become more educated, even driven to pursue greater methods of IT cost containment.

Asset Lifecycle Extensions – 2013 to Today

In the 1990s and early 2000s, only a handful of financially distressed companies were proactively seeking creative ways to extend hardware lifecycles and contain both CapEx and OpEx costs. We've estimated that 10-12% of global companies were buying secondary hardware or were pushing for hardware investments to exceed the OEM-preferred lifecycle of only three years. In a few cases, legacy hardware assets were kept around to run legacy applications – as they awaited an application enhancement or were actively seeking a better alternative. However, in the case of federal government agencies, tech refresh delays would often be caused by budget restrictions or essential mandates. There most certainly are pockets of the government running 15+ year old hardware because new hardware couldn't handle the requirements of the older applications, which have not yet been replaced.

However, most companies were quite comfortable with OEM refresh treadmills, unaware of how stable these assets had become, spending big on the OEM promise of efficiency, reliability and competitiveness. "Hardware Lifecycle Extension Strategies" would have sounded odd to some, even illogical, while the deeper meaning entirely missed.

So much has changed.

While software application efficiencies/improvements continue to be of great importance, perceptions about hardware and OEM reliance for ONLY new hardware has decreased in importance. Although cloud option discussions have been overwhelming at times, the mere existence of cloud options has created leverage for most data center decision makers. Additionally, new leverage has come from open source OS, applications and open source hardware. It is the presence of these options, and this new leverage, that has caused more and more hardware infrastructure leaders to re-think their "sacred cows." Combined with mandates from management to optimize and reduce IT costs. Globally, most data center decision makers are thinking much differently about their hardware assets.

Simultaneously, paradigm shifts are furthered by Gartner and IDC published content about IT cost optimization and hardware lifecycle considerations.

From Gartner:

- In March 2016, Gartner's Christine Tenneson, published the following statement. "End-user interest and demand for alternatives to OEM support for data center and network maintenance are increasing, fueled by a need for cost optimization." Gartner Doc. [ID G00294372](#). In the same published research, Tenneson also stated, "Hardware Maintenance is increasingly being considered as a 'non-strategic IT' spending and procurement, with the result being that IT professionals are seeking low-cost alternatives to expensive OEM contracts."
- In March 2017, Gartner's Stanley Zaffos published a report named, "Lower Both Storage Acquisition and Ownership Costs by Using Third-Party Maintenance." Gartner Doc. [ID G00324284](#). He stated, "Many third-party maintenance (TPM) providers are delivering quality storage array break/fix support to stable storage systems with savings typically in the 40% to 70% range." In the same document, he also offered, "The useful service life of storage arrays, which is seven to eight years in clean data centers, and almost always greater than their planned service lives." Zaffos added, "TPM represents a significant opportunity to reduce costs, negotiate lower rates from vendors and/or extend the useful service life of installed storage arrays."

From IDC:

- In September 2015, IDC analyst, Rob Brothers, published a report named, "Third-Party Maintainers and the Enterprise Datacenter: Still Gaining Ground." IDC Doc. [ID 258887](#). In the article summary, "Enterprise customers have made it very clear they will utilize third-party maintainers and not just for cost savings," offered Brothers. "The easy-to-do-business aspect they have alluded to in the survey is surely a compelling differentiator."



Hardware Lifecycle Strategies & Independent Hardware Maintainer Adoption

In June 2016, IDC published another report in favor of third party maintenance alternatives, "Cut Operational Costs: Third-Party Maintainers for Legacy and Stable Datacenter Environments to Help Invest in the Future." IDC Doc. ID US41447716 (no longer available for online purchase). Details and statistics were based on a global survey of data center clients and survey questions included third-party usage, reasons for choosing TPM support and percentage of the data center covered by Third Party Maintenance companies. The report included several influential data points, comparing TPM usage from 2013 to 2015, showing a substantive increase in reliance. And that now, "nearly half of all global respondents are using third-party maintainers for a portion of their data center environment."

Additionally, Gartner's Christine Tenneson explained, "Third-party maintenance (TPM) as a hybrid strategy to support server, storage and networking equipment continues to gain adoption. Some OEMs' pricing methodologies demand significant increases in maintenance charges as equipment ages, which drives customers to consider cost optimization using TPM. Seventy-one percent of the world's largest companies used a third-party maintainer as a form of support in their environment in 2016." Gartner Doc. [ID G00294372](#).

Following this published document, Tenneson presented the following and related data points to members of the Service Industry Association:

- "59% of F500 companies used third party maintenance in 2016"
- 70% of F100 companies purchased secondary hardware in 2016
- 57% of F500 companies purchased secondary hardware in 2016"

Summary

From such adoption rates, both globally and within those very large companies, it is quite apparent that hardware lifecycle extension strategies are now mainstream and independent provider solutions now play an integral role in IT cost optimization for companies around the world.

Brent Anderson, Chief Marketing & Strategy Officer, XSi

Brent joined XSi in 2020, bringing with him 30 years of marketing expertise, mostly IT and healthcare. Early in his career, he worked for a few of the country's leading brand development firms in the Twin Cities, but landed firmly in IT and Independent Hardware Maintenance in 2002. During his IT Maintenance career, he worked at four IT maintainers (Qualtech/QSGI, Top Gun Technology, SMS/Curvature, SCS), helping two of them from their origins to a recognized and successful business entity. In all instances, he managed the marketing departments, was the primary liaison with industry analysts (e.g. Gartner, IDC) and oversaw all marketing objectives, strategies and tactics. His greatest strengths have been in brand or market positioning and building a solid digital presence. His interests include: prairie restoration and habitat improvement projects, pollinator education, movies, music, craft beer, cooking, cast iron cookware restoration, youth education, fishing, hunting and BWCA camping.



Call us at **770-740-0040 (US)**, **+1-770-824-3453 (International)**,
or visit our website at **xsnet.com** to learn more.