

# ***SOFTWARE LICENSE OPTIMIZATION FOR FEDERAL AGENCIES***

***The four capabilities needed  
for any effective solution***

# Software License Optimization for Federal Agencies

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### Summary

Federal agencies spend billions of dollars each year on software. Unfortunately, a large portion of that spend is wasted because agencies underutilize their software licenses. This paper discusses why waste occurs and explains how automated software optimization can help agencies prevent it.

### The challenges of effective software license optimization

**Software overutilization** occurs when federal agencies use more software than they're entitled to use. When that happens, they incur unexpected maintenance fees to cover that overutilization. These fees, which can amount to millions of dollars for major software brands, are negotiated during software true-up audits that compare utilization with entitlements.

**Software underutilization** occurs when an agency purchases software but doesn't fully use it. So money is wasted on unneeded software.

In either case, money is wasted that could've been used for higher-priority projects. The reason software over- or underutilization so often occurs is that many agencies lack clear visibility into their IT estate. So it's difficult for them to identify what they have, what they're entitled to and what they're using.

To get that information, many agencies employ spreadsheets that are incomplete, error-prone and time-consuming to maintain. These errors and inconsistencies complicate agencies' efforts to set priorities, manage their IT estates and reduce risks.

So where does the problem lie? It's in the details. Most agencies have poor inventory data or poor understanding of their licensing entitlements—or both.

## Poor inventory data

The inventory data on which agencies rely is often fraught with excessive inaccuracies, varying nomenclature, duplication, inconsistencies and incompleteness. That's because agencies rely on numerous infrastructure and discovery tools to gather software asset data. This results in a hodgepodge of software inventory data that must be painstakingly reconciled, normalized, deduplicated and made consistent.

Agencies typically don't have time or staff to support this manual process. Consequently, they end up with software asset inventories lacking critical pieces of information, such as specific versions of software assets. A single software asset may be referred to by many different naming conventions—in some cases, hundreds—resulting in highly distorted views of an agency's inventory.

For a software asset inventory to be effective and efficient at supporting management decisions that will produce tangible cost-saving results, it must be complete, accurate, normalized and deduplicated.

Without high-quality software asset data, agencies will continue to lose money through wasteful practices. The waste could be significant, as one major federal agency—the Department of Homeland Security—reported saving \$181 million in one year simply by consolidating its enterprise license agreements, according to the Government Accountability Office.

There's another challenge. Even if an agency's software managers can gain sufficient visibility into their software estate to see where unused software assets are available, they typically lack the ability to figure out who within their agency could use that software and efficiently distribute it to them.

## Poor understanding of licensing terms

The terms and conditions around the use and reuse of software are highly complicated. For example, consumption of a certain piece of software may vary considerably, depending on what hardware it runs. Similarly, product-use rights also vary widely from one software package to the next.

This challenge also extends to concurrent-use software, such as computer-aided design and engineering applications, which are licensed for concurrent use among multiple users. Few organizations have the capability to rightsize their concurrent-use software inventories to their needs.

An agency that lacks a clear, working understanding of its software terms and conditions across the enterprise is exposed to potentially millions—or tens of millions—of dollars in unanticipated software license true-ups discovered during audits. Moreover, agencies with this problem often have difficulty effectively governing, optimizing and administering their software estate.

## The four levels of an effective software asset management solution

These are highly complex challenges, and they illustrate why agencies have struggled for so long with effective software asset management. But many federal organizations are successfully overcoming these challenges with a comprehensive, multi-layered approach that leverages automation and business intelligence. When designed well, such an approach enables agencies to manage software assets and optimize licenses for desktop and server software throughout the software lifecycle.



### Level 1: Discovery and inventory

The first level of any effective solution should address the challenges of discovery and inventory, answering the question, “Where is software deployed and how is it being used?” This can be done by leveraging discovery tools already in place and, if needed, can be supplemented with agent or agentless technologies.



### Level 2: Normalization

To be effective, discovery data must be normalized or made consistent. This second level gathers and combs through reams of file, package, registry and other data to determine which applications are installed on any machine. The process should be automated and paired with a central, up-to-date repository of standardized software names and versions to produce a normalized list of applications per device.



### Level 3: Compliance and reuse

The next level is one of the most challenging: automating the process of reconciling purchased licenses with installed licenses and then generating a license compliance position. To accomplish this, an effective solution needs to pull and correlate data

from purchase orders, such as basic entitlement data, numbers of licenses for each software title and stock-keeping unit (SKU) data. To automate this process, a solution needs to consult an up-to-date SKU repository of software part numbers to understand what’s been purchased.

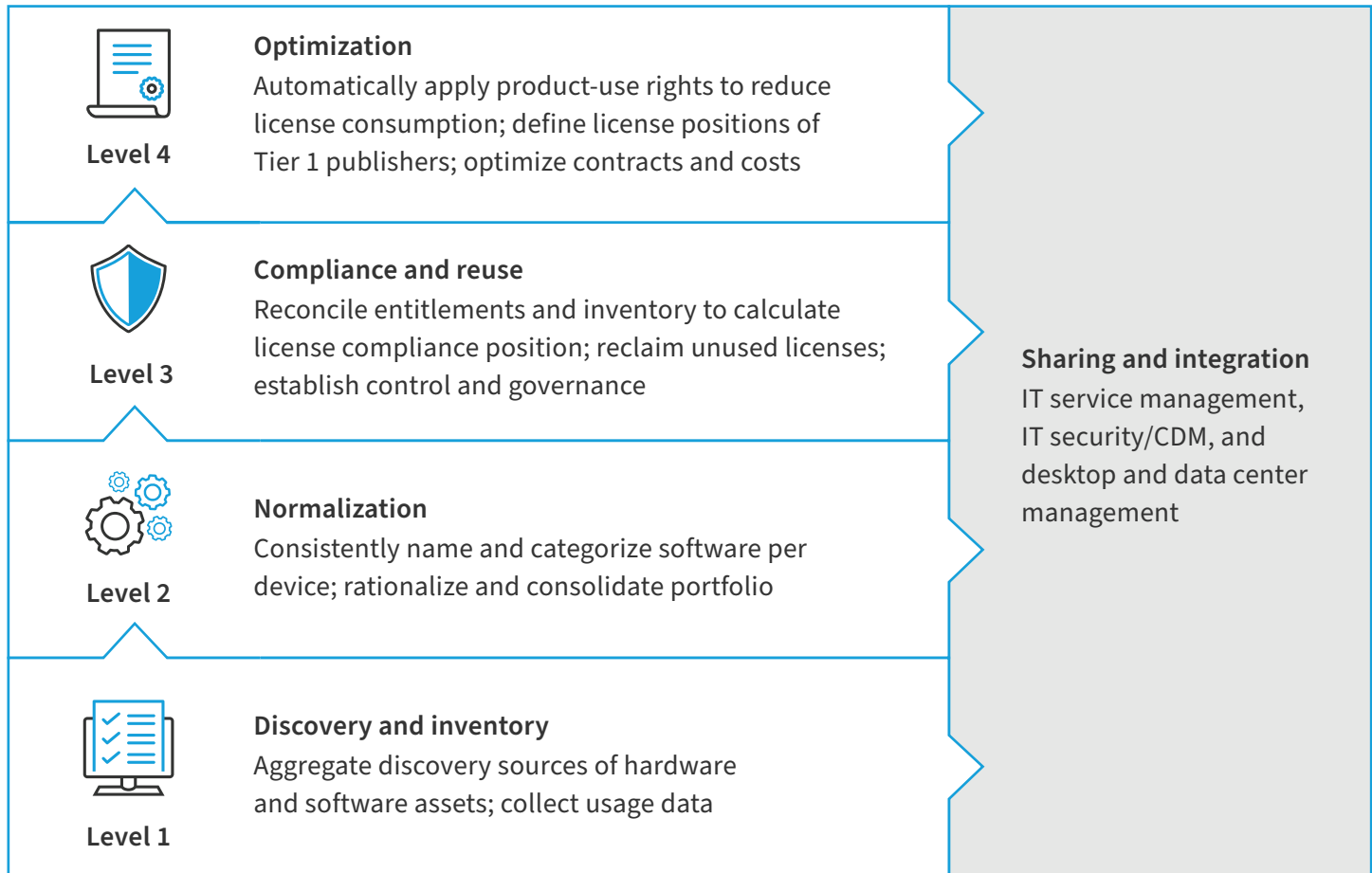


### Level 4: Optimization

To be highly effective at minimizing license consumption and reducing software spend, a solution must access a deep repository of product information and usage rights. Each software vendor employs different license models, entitlements and contracts to determine the number of licenses required for each software product.

A wide array of product use rights for each software title must be accessed, such as upgrade, downgrade, second use, virtual use, disaster recovery and failover rights. With this degree of access to comprehensive license entitlements for key vendors, federal agencies can minimize license consumption and reach the highest maturity level of software asset management capability: license optimization.

## Software license optimization maturity model



## Flexera solutions: Comprehensive approaches to software license optimization

Flexera’s solutions are unique because they provide all four capability levels, including in-depth information on more than 16,000 software products and automated Level 4 (optimization) solutions for the largest high-value vendors. Agencies can calculate an accurate license compliance position and streamline license management processes—including software reuse—through automation.

To enable agencies to reach Level 3 (compliance and reuse), Flexera’s IT visibility solutions utilize an SKU library of more than one million software part numbers to automatically reconcile purchased licenses with installed licenses to generate a license compliance position.

Similarly, Flexera’s asset management solution employs a product use rights library that contains license entitlements for key vendors—including Adobe®, IBM®, Microsoft®, Oracle®, SAP®, Symantec™ and VMware—to minimize license consumption and achieve Level 4 using highly automated processes. Flexera’s asset management solution also enables agencies to manage and optimize complex license models such as Oracle Named User Plus, Oracle Processor, IBM PVU, IBM RVU, Microsoft Core and many others. Results and reporting can also be integrated into any IT service management platform.

## Additional levels of capability for even greater optimization

Software licenses can be optimized even further for government agencies. For example, many agencies require expensive concurrent-use software applications for design and engineering projects. Employing the four levels of capabilities mentioned above, agencies can better understand their actual needs for concurrent-use software titles.

Flexera's IT asset management solution for engineering applications centralizes license server administration for thousands of concurrently licensed applications, including AutoCAD®, MATLAB®, IBM® Rational®, CATIA® and Petrel. This solution enables unprecedented insight so decision makers can optimize opportunities and take action to reduce costs and eliminate overspending on software licenses. This can eliminate the common practice of overspending to avoid denials of service.

Agencies can incorporate another capability for added optimization: the creation of an automated, in-house app store that pools all unutilized software entitlements and makes them available on an as-needed basis to employees across the enterprise.

Flexera's application distribution solution does this for desktop, cloud and mobile applications. It enables IT managers to maintain the control necessary to ensure compliance with licensing agreements and corporate policy, while reducing software costs and maximizing software usage. The solution provides seamless integration with software license optimization processes that enable automated reclamation of unused software to avoid overspending on expensive enterprise software licenses. In addition, Flexera's application distribution solution addresses the business need to control the distribution of approved and authorized applications. The consumer-driven experience for accessing IT resources makes the process easy for all employees.

## Flexera benefits

Flexera's IT asset management, IT visibility and IT distribution solutions bring a multi-leveled and comprehensive approach to software optimization, which can benefit any federal agency. Many agencies already employ these solutions and have experienced reduced software cost and risk, greater cost control and improved operational efficiency. Benefits of this approach include:

- Optimized license consumption to reduce software costs
- Improved FITARA (Federal Information Technology Acquisition Reform Act) scores
- Reduced software maintenance and subscription costs
- The ability to reuse licenses, optimize renewals and reduce denials of service
- Optimized spending on expensive technical applications
- Better forecasting and vendor negotiation
- Simplified and centralized license server administration

- Efficient sharing of licenses across the enterprise
- Improved productivity for engineering and design professionals
- “What if” analysis capabilities to see the impact of hardware and software changes on the agency's license position before those changes are made
- Reduced manual effort
- Streamlined and accurate vendor audit response

The capabilities created by this multi-leveled approach enable agencies to extend their capabilities beyond traditional software asset management so they can proactively bring their software inventories and enterprise-wide software needs into optimal alignment and keep them that way.

### NEXT STEPS

Let us help with  
your software  
license optimization

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### ABOUT FLEXERA

Flexera helps business leaders succeed at what once seemed impossible: getting full visibility into, and control of, their company's technology “black hole.” From on-premises to the cloud, Flexera helps organizations unravel IT complexity and maximize business value from their technology investments. For more than 30 years, our 1,300+ team members worldwide have been passionate about helping our more than 50,000 customers optimize IT to achieve their business outcomes. To learn more, visit [flexera.com](https://flexera.com)