KINETICDATA

Smart Spending for a Smarter Military

How Shifting Software License Strategy Can Stretch the DoD Budget

WHITE PAPER

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Introduction

Faced with a federal debt of $35 trillion and growing, federal government agencies generally, and the Department of Defense (DoD) specifically, are actively seeking guidance from the private sector on ways to do more with less. To maintain and modernize our national defense in an environment of both emerging threats and increased budget scrutiny, the military, like federal civilian agencies, will need to spend smarter.

Though there is bipartisan agreement on the importance of enhancing our defense capabilities, there is also recognition that our armed services and the DoD will need to spend differently[1]—not more—in order to reach their goals. In the words of Representative Ken Calvert, Chairman of the Subcommittee on Defense Appropriations of the House Committee on Appropriations, "There are going to be some unhappy people who are all trying to get their two cents in, but we don't have two cents."[2]

Echoing this sentiment, former House Speaker Kevin McCarthy added, "We need to reshape the Pentagon to be more effective, more efficient, and really think like a startup. I think our money will go further, and that's very important to what we do in the future as well."[3]

One significant efficiency already underway is the shift from license-based to consumption-based pricing models for software procurement. Just as the DoD and other federal agencies transitioned from purchasing and physically installing on-premises software platforms to subscribing to enterprise software-as-a-service (SaaS) offerings in the early 2000s, those agencies are now moving away from per-user or per-seat licensing to consumption or usage-based models.

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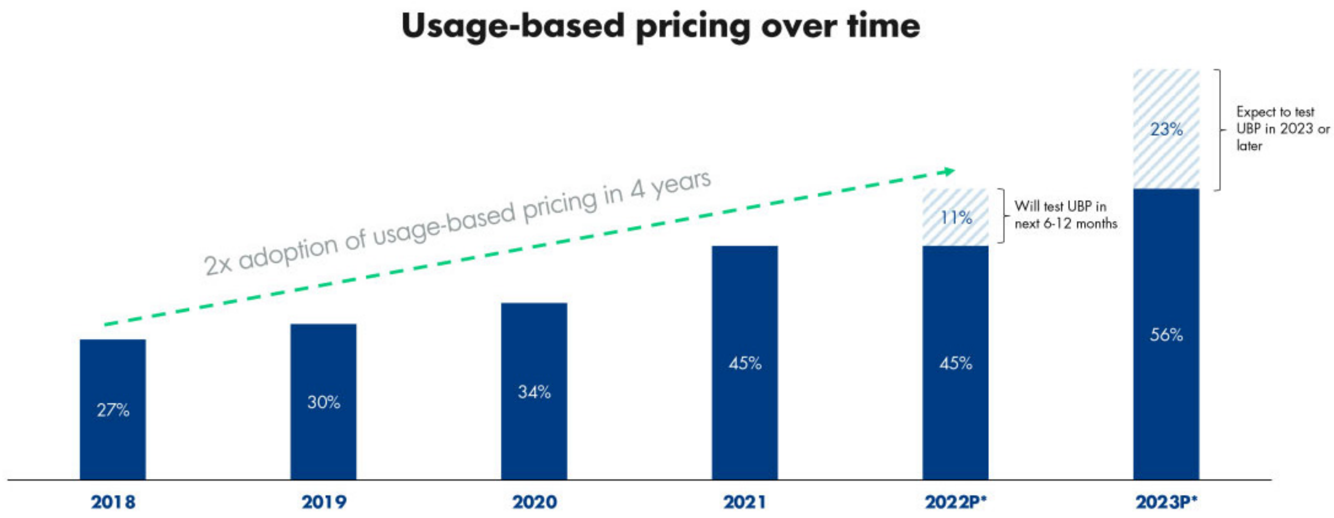
FORMER HOUSE SPEAKER KEVIN MCCARTHY

Although federal agencies have been purchasing software based on per-user licensing models for decades, the days of the solution to every software problem being "buy more licenses" are quickly disappearing. Based on the simple idea that "Consumers prefer to pay for what they use; from the electric meter on their house to the gas pump," forward-thinking software vendors began offering usage-based pricing nearly a decade ago.[4]

Today, charging based on the use of software instead of by per-user license subscriptions is "the model fueling some of the fastest-growing and highest-valued SaaS companies," according to research from Bain. Across the private sector, "It has quickly become popular with customers. With consumption pricing, 80% of customers report better alignment with the value they receive."[5] In response, vendors are shifting away from traditional per-user licensing schemes and shifting to more flexible buying models.[6]

USAGE-BASED PRICING IS GOING MAINSTREAM



Source: OpenView 2021 Financial & Operating SaaS Benchmarks Survey

Software buyers in the federal government, and particularly the DoD, recognize the benefits as well and are rapidly shifting dollars away from vendors stuck on per-seat licensing and towards developers offering consumption-based pricing. By spending smarter, government software buyers will get purpose-built solutions with faster time to value, enabling them to solve bigger problems at lower cost.

Definitions: User-Based vs. Usage-Based Pricing

Before delving deeper into this major shift in federal government software procurement, here are the definitions of two key terms used throughout this white paper.

Keep in mind that for enterprise SaaS products often deployed at the federal government level, vendors may charge a base or platform fee in addition to per-seat or usage-based pricing. In addition, platforms typically require professional services such as integration, configuration, and training, which may be delivered directly by vendors or by third-party service partners.

License-based pricing, aka per-user, per-seat, or user-based pricing:

In this approach, the cost of the software is determined based on the number of users or seats within an organization that require access to the software.

Under license-based pricing, each user who needs to utilize the SaaS software is assigned an individual license. This license grants them the right to access and use the software according to the terms and conditions set by the vendor. The pricing is typically structured on a subscription basis, where the organization pays a recurring fee for each user license.

The cost per user per year is fixed, whether that user logs in just once per quarter or is working in the system all day, every day. That pricing model is great for vendors, but not so great for government or military software buyers.

Enterprise SaaS vendors using this model may also offer different per-user pricing based on user type (e.g., approver, fulfiller, administrator) and/or different tiers of features (e.g., Essentials, Professional, and Enterprise). Bear in mind these tiers are by design opaque, difficult to easily quantify, and tied to features sets in the platform.

Consumption-based pricing, aka usage-based, utility-based, or metered pricing

Unlike per-user pricing models, where organizations pay a set fee regardless of usage, consumption-based pricing charges customers based on their actual usage or consumption of the software's resources or features.

In a consumption-based pricing model, the cost is directly linked to the volume of resources consumed or the specific features utilized by the organization. This can be measured in various ways, such as the number of API calls, workflows, storage used, data processed, or the duration of usage. The pricing is typically calculated based on predetermined rates or tiers set by the vendor.

The advantage of consumption-based pricing is its flexibility and cost efficiency. Organizations only pay for what they actually use, allowing them to align their expenses with their specific needs and avoid overpaying for unused resources. This model is particularly beneficial for agencies and organizations with fluctuating or unpredictable usage patterns, as they can scale their usage up or down and adjust costs accordingly.

Consumption-based pricing means paying for "actual usage" rather than simply a "right to use." Paying for actual usage means the government and military are getting actual benefit. When the vendor receives more money for actual usage, this is a win-win for vendors and the government. The vendor will be looking for ways to achieve greater adoption and greater usage—which provides greater benefit for government and military buyers.

Since there is no limit on the number of users, organizations can provide access to anyone who may benefit from using the software, at no incremental cost. Additionally, consumption-based pricing incentivizes efficient resource utilization and provides transparency by giving customers visibility into their usage and associated costs.

USER LICENSE-BASED PRICING	CONSUMPTION-BASED PRICING
Cost based on number and access level of seats	Cost based on volume of usage
Every user consumes a license	Unlimited users
Cost per user is fixed	Cost per user varies by usage
Pricing model: complex and opaque	Pricing model: simple and transparent
Monthly cost: fixed, predictable, and (generally) high	Monthly cost: variable but (generally) lower
Functionality based on access level or user tier	Functionality limited only by user's security level
Difficult to scale down during slow times	Easy to scale up or down
Vendor incentive: sell more licenses	Vendor incentive: provide more value

Pricing predictability and complexity

In theory, usage-based pricing is simpler and more transparent, while per-user pricing is more predictable. In practice however, vendors pricing on a per-seat basis often have complex models which make their actual costs difficult to understand and predict.

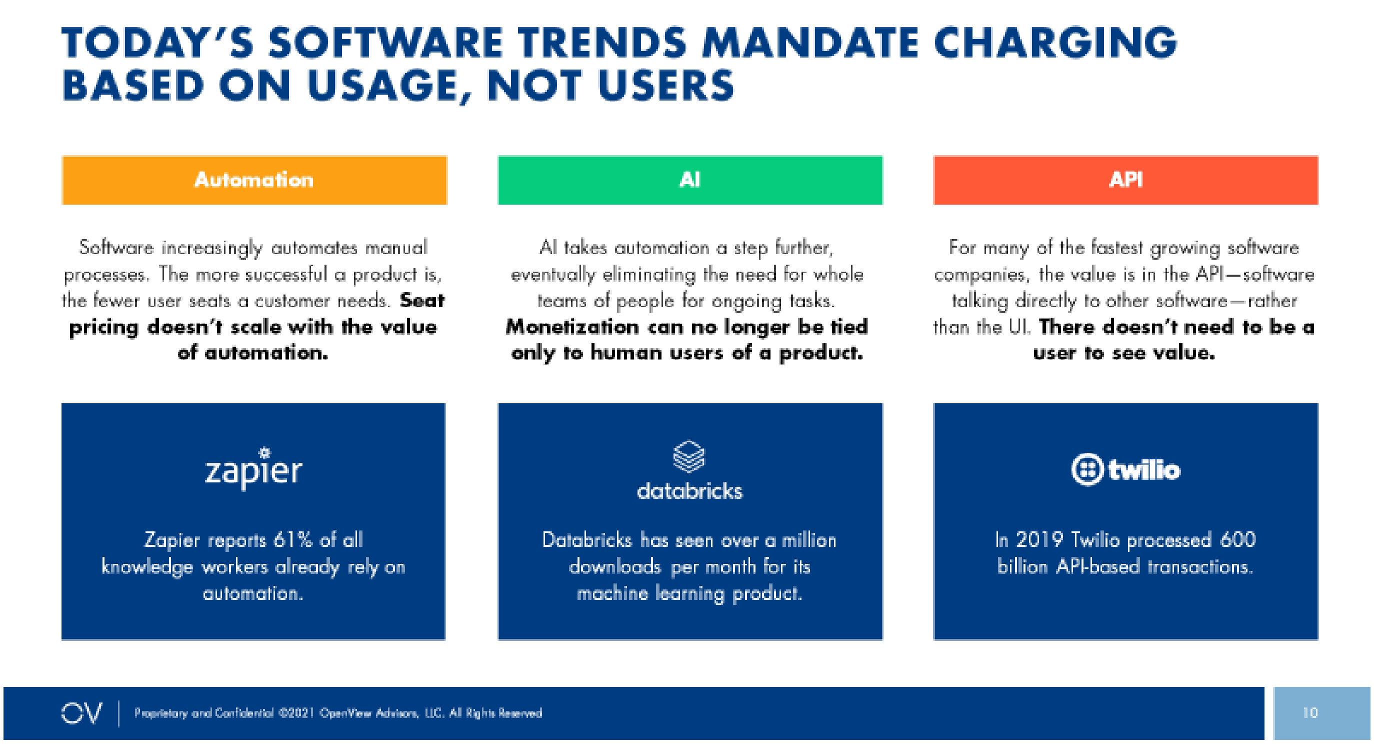
For example, "ServiceNow's pricing model uses a complex matrix of factors where each factor weighs in to influence your grand total." In addition to differential pricing based on industry, region, organization size, and specific product, "Each product offers at least two packages where this general rule applies: the more functionality available, the bigger the price. On top of that, your total price is affected by the number and type of licenses" needed.[7]

As one more example, per Forbes, "Salesforce pricing can be complicated and difficult to know what you'll be paying for the features you want the most." The company offers four different tiers of per-seat pricing for its CRM platform—Essentials, Professional, Enterprise, and Unlimited—as well as additional products and add-ons.

Why the DoD is Shifting to Consumption-Based Pricing for Software

The DoD has a considerable technology budget, spending more than $45 billion annually for IT communications, infrastructure, and business systems.[8]

But it doesn't always spend those dollars wisely. As recently reported, "The House Armed Services Subcommittee on Cyber, Innovative Technologies, and Information Systems (has called) for an independent assessment of military software and IT to determine how much money the department is losing—including in productivity—due to poorly performing software and IT systems."



One committee aide added and explained, “Because the department (of Defense) and the military services often have what we consider underperforming, poorly performing software and IT, service members are wasting an enormous amount of their time which is not spent training. It’s not spent thinking strategically. It’s not spent doing the things that we need them to do as a military because they’re literally staring, waiting at their computer for their computer to load, for their email to load, for one system to talk to another.”[9]

License-based pricing contributes to these problems; the DoD has acknowledged but never fully addressed the challenges of comprehensive license management. As far back as 2014, the GAO found that “The Office of Management and Budget (OMB) and the vast majority of agencies that GAO reviewed (including the DoD) do not have adequate policies for managing software licenses.” Though the DoD did implement webinars and video training over the next few years, it was noted in 2019 that the department was still working “with peer agencies to identify opportunities to access required software management skills and other required training.”[10]

Historically, selling based on a per-seat licensing model has been a boon for vendors. Pricing is purposely opaque and complex (see the examples above). Money is paid upfront for value realized over time. To avoid overspending, organizations can implement license management programs. However, these programs themselves are complex, expensive, and time-consuming—to the point where over-buying of licenses may be viewed as simpler and less costly than managing licenses closely or being out of compliance.

> **Consumption pricing has quickly become popular with customers. With consumption pricing, 80% of customers report better alignment with the value they receive. Nearly half of software companies using it say it has helped them acquire more customers. Indeed, many of today’s most valuable, fastest-growing SaaS companies employ consumption pricing.**

As one publication recently noted: “(In the face of) declining revenues...vendors are relying on audits to make up for lost revenue and consolidation in the industry. Expect certain vendors to aggressively increase their efforts to ensure license compliance. Non-compliance can carry hefty penalties...In the past, customers would find themselves buying an entire package of licensing software because that’s what was available or offered to them. Even if they were not certain how they would use the product in their organization, there was no other recourse but to buy in bundles...Cloud offerings and the process of determining what exactly is required with premium features have become increasingly complex. This means overcharging may run rampant.”[11]

In short, over-buying per-seat software licenses is expensive and inefficient. Closely managing license usage to avoid over-buying is expensive and inefficient. Failing to manage license usage and being found out of compliance in an audit is (potentially very) expensive.

Under a per-user license model, the organization is paying for users who are licensed but not yet trained or using the software. Faced with this situation, the DoD is shifting procurement dollars to vendors that offer consumption-based pricing models. Switching from per-user to consumption based licensing allows for properly managed spend from day one of software projects.

Paying for enterprise SaaS software based on usage rather than per-seat licenses is simpler, better aligns cost to value, delivers value faster, and offers other compelling advantages, as detailed in the next section.

Benefits of Consumption-Based Over License-Based Pricing

The shift to consumption-based pricing is evidenced and being driven by both increasing demand and supply. Four of the seven fastest-growing enterprise software vendors primarily use consumption based pricing, per Bain.[12]

According to the firm's research: "Consumption pricing...has quickly become popular with customers. With consumption pricing, 80% of customers report better alignment with the value they receive. Nearly half of software companies using it say it has helped them acquire more customers...Indeed, many of today's most valuable, fastest-growing SaaS companies employ consumption pricing."

Moving from a legacy mindset to a pay-for-what-you-use mindset, from per-seat to consumption pricing, is reducing bloatware and delivering value to the military and federal civilian agencies. Buyers increasingly prefer usage-based pricing, for a baker's dozen compelling reasons.

Benefits of consumption-based pricing

- Low upfront costs
- Opex rather than Capex
- Pay only for what you use
- No overprovisioning
- On-premises control
- Simplified IT and support
- Less commitment and risk

SOURCE: ROBERT SHELDON

Flexibility and Scalability:
With per-user pricing, costs go up as more licenses are purchased—but rarely go down. In a consumption-based model, however, costs increase automatically (there's no need to purchase additional seats) during times of heavy use, but also dynamically fall during slow usage periods.

Cost Efficiency:
In consumption-based pricing, you simply pay for what you use, just as you do with electricity, cloud data storage, and other utilities. Per-seat licensing is less efficient by design. As noted on the Kinetic Data blog: *"Managing the costs incurred by per-user licenses can be a tricky undertaking. That's why organizations need to be careful to ensure they are striking the right balance between covering their usage needs and not overspending. Keep in mind that vendors depend on your inefficiencies to increase license counts."* [13]

Increased Access for Users:
In a consumption-based pricing environment, there's no need to artificially limit the number of users or force prospective new users to prove their need. And as one large venture capital firm notes for vendors, *"Abandoning seat-based software pricing models encourages more people within a customer account to incorporate your product into their workflows and processes."* [14]

Lower Upfront Cost / Barrier to Entry:
Regardless of pricing model, most enterprise systems entail upfront costs in terms of a flat fee for the base platform plus professional services. But beyond that, the cost differences between license-based (which typically requires a minimum number of licenses purchased, then "consumed" over time) and consumption-based (where costs are near zero at implementation then rise over time with greater use) models can be substantial.

Value / Alignment with Usage:
With per-seat licensing, you pay the same amount for a casual user as for a power user. Costs are misaligned with the value received. But with consumption pricing, value is always aligned—you pay only for the "consumption units" used by each individual.

Clarity and Transparency:
Usage-based pricing is easy to monitor. The quantity of "units consumed," however that may be measured-- number of API calls, database queries, transactions, or some other metric—is easy to track, and the cost per unit is known. License-based models from enterprise vendors, on the other hand, are often purposely complex, granular, and opaque.

Faster Time to Value:
As noted above, user license-based systems often entail a large up-front cost, with value gradually realized over time. But with consumption-based pricing, costs generally start lower then scale up as use increases. Again, as OpenView notes about this shift for vendors: "It (consumption pricing) allows the customer to start at a low cost, minimizing friction to adoption. The best way to win customers in the end-user era is to deliver value rapidly and for little to no cost...usage-based pricing is extremely customer-friendly."[15]

More Equitable:
Consumption-based pricing more accurately aligns the budget dollars spent by the DoD with actual vendor costs. License-based pricing, on the other hand, is a great deal for vendors, but doesn't align their costs with the value delivered to buyers. In the words of Frank Slootman, former chairman of ServiceNow and currently CEO at Snowflake, *"When I was at ServiceNow for all these years, I always felt there was an inherent inequity between us as a vendor and the customer. The customer would often buy tons of licenses, and they wouldn't even be using them yet. And I'm like, 'This isn't right. This is not equitable.'"*[18]

Greater Access to Capabilities:
Enterprise vendors using per-seat pricing typically price different types of users in tiers; power users get more functionality, but at a higher price. This unnecessarily adds to the administrative burden, as new users must be matched to the right tier in order to get needed functionality while minimizing license fees. With consumption-based pricing, every user gets access to every feature. This both increases the value delivered and decreases administrative tasks. Limits are placed on users only on security-based access privileges— no tiers.

Increased User Satisfaction:
With consumption pricing, users get access to all features of the software. They don't need to prove the need for an additional seat license as with per-seat systems. And they get a platform that meets their needs, without distracting bloatware. All of which improves user satisfaction.[17]

Risk Mitigation:
With consumption pricing, there's no risk of overspending on user licenses or compliance audits with financial penalties.

Reduced Bloatware:
Consumption pricing avoids the "bloatware" issues commonly encountered in large enterprise systems. Too often, enterprise vendors bundle or "toss in" additional products or features no one needs or is asking for. It's frequently difficult to remove, confusing, and distracting to users.[16] Purpose-built systems priced on a consumption basis deliver precisely what users need, without the distractions.

Simplified Management / Reduced Administrative Burden:
Again, as with a utility, you're simply billed based on usage. There's no need for complex license management systems or processes.

Examples of Vendors Offering Consumption-Based Pricing

Consumption-based pricing is being increasingly embraced by software buyers and vendors alike.

According to Bain & Company, consumption-based pricing "has quickly become popular with customers. With consumption pricing, 80% of customers report better alignment with the value they receive... (furthermore) nearly half of software companies using it say it has helped them acquire more customers, and two-thirds say it's helping them increase revenue with existing customers."[19] Consumption-based pricing is the primary model used by four of the seven fastest growing enterprise software providers.

Examples of innovative software vendors using consumption-based pricing include:

amazon CONFLUENT JFrog KINETICDATA snowflake

DATADOG Avalara dynatrace twilio mongoDB.

Conclusion

The U.S. military and federal government agencies are being challenged to improve their efficiency and effectiveness through the use of technology while spending smarter on the infrastructure and applications needed to achieve their goals.

One key element in this strategy is to embrace the shift from license-based to consumption-based pricing for enterprise software, emulating the trend in the private sector since 2015. With consumption, or usage-based pricing, the DoD and federal agencies are better aligning costs with the value received from the software they are acquiring, rather than simply buying more user licenses as needs change.

Purchasing software on a consumption-based pricing model provides numerous benefits for the DoD and federal agencies, including greater flexibility and scalability, simplified management, reduced risk, lower up-front costs, faster time to value, and increased user satisfaction.

Recognizing this value to buyers, an increasing number of enterprise software vendors are offering usage-based pricing, including four of the seven fastest growing companies in the space.

The days of "buy more licenses" being the answer to every new challenge are rapidly disappearing. Software decision makers across the military and federal civilian agencies are following the example of the private sector in embracing consumption-based pricing models that accelerate time to benefit and better align costs with the value realized from technology investments.

About Kinetic Data

Kinetic Data is a dual-use software company specializing in enterprise workflow automation, specifically for self-service user experiences. Our Digital Experience Platform (DXP) was designed based on our two decades of experience with large government agencies and commercial enterprises, enabling platform modernization and workflow integration projects. We approach business technology transformation differently than many software companies. We believe in enabling organizations to leverage their existing investments in critical systems, technologies, and processes by simplifying digital user experiences in a self-service model that decouples best-of-breed capabilities from business specific requirements, allowing end-to-end workflow automation that reduces complexity and overhead.

For more information, visit KineticData.com.

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KINETICDATA

www.kineticdata.com | sales@kineticdata.com | 651-556-1030
323 Washington Ave N Ste 200, Minneapolis, MN 55401