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Eight Criteria for Evaluating Software License Metrics

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Analyst(s): Alexa Bona, Jane B. Disbrow, Peter Wesche

Procurement executives and software asset managers are struggling to predict the costs associated with a confusing array of new licensing metrics from software vendors. This report identifies eight criteria with which to assess the appropriateness of any new licensing metric.

Key Findings

- Software vendors are licensing solutions based on new, sometimes unfamiliar, metrics.
- Software-as-a-service (SaaS) providers with solutions that do not lend themselves to per-unit, per-month pricing are struggling to devise equivalent simple metrics on which to base subscriptions.

Recommendations to User Organizations

- Assess software license or subscription metrics against eight criteria: simplicity; clearly defined usage rights; predictability of costs; control and external validation of increases; measurability of usage; direct relationship between the metric and the value delivered; independence from underlying technology; and fair relationship of price to value.
- If a software vendor proposes a new license metric, calculate its impact. If the costs are significantly higher, or the metrics present other challenges according to the eight criteria, then, if you have leverage, ask the vendor to propose an alternative.
- If you have a metric that works for you, ensure you "lock in" the right to purchase additional units under that metric in perpetuity, to avoid being forced into a potentially costly conversion if the provider changes the metric in the future.
- For SaaS, part of the value proposition is simplicity, so be aware of the cost and administration involved if a provider offers more than one metric per product.
- When piloting cloud services, request pro forma invoices so that you fully understand how the pricing metric works.

Analysis

IT procurement and sourcing executives are struggling to understand what constitutes best-in-class contract terms and conditions in order to protect their IT investments over time. Evaluating licensing or cloud-based subscription metrics — the mechanisms that primarily determine the fees to be paid (see Note 1) — presents a challenge to both customers and providers.[1]

Traditional licensing metrics (that is, the units used to charge for software), such as by named user, number of concurrent users, CPUs/cores or servers — are being criticized and are in decline, for several reasons (see Note 2). Also, they often do not work for cloud delivery models. This situation has prompted software vendors to introduce an often bewildering array of new metrics to replace them. Providers entering into cloud delivery models such as SaaS and infrastructure as a service (IaaS), and others with solutions unsuited to per-user or per-unit, per-month pricing, are struggling to devise simple metrics. (For the strengths and challenges of some metrics, see "The Advantages and Disadvantages of Different Software License Models.")

There is no perfect metric. The appropriateness of a metric in a particular situation depends on factors ranging from the nature of the software solution and how it is used, to technical constraints and the existence of competitive offerings. Use the eight criteria described below to gain a better understanding of the appropriateness of vendors' metrics, and of how well they lend themselves to accurate predictions of future costs.

As with all contractual issues, you will be most effective in pressing for changes on the basis of these criteria if you have leverage — though, even then, some firmly established providers will resist any changes to their license metrics, even if you are buying a new product. We have, however, seen evidence of flexibility from smaller and newer providers, from cloud providers, and from established vendors that are either moving into a new delivery model such as SaaS or unsure how to price a new product.

1. Simplicity and Ease of Administration

Licensing metrics are unit-based mechanisms used to charge for software. They should be easy to understand. A provider should be able to explain its metrics in less than three minutes to IT procurement staff and those budgeting for and measuring license usage. Also, provider and customer should also be able to manage licenses from a financial, contractual and physical perspective without complex administrative processes. For cloud solutions like SaaS, IaaS and platform as a service (PaaS), simplicity is part of the value proposition and an important criterion.

Some on-premises software vendors use so many license metrics that they confuse customers who try to understand and monitor each one. Having numerous metrics also makes it difficult for customers to feel confident that the contract defines each metric clearly. Gartner recommends having a single licensing metric for a single product, and no more than three metrics per software solution. For example, a vendor should charge fees only per named user, CPU and transactions processed to license an entire CRM solution combining sales service and marketing functions. Metrics should not be combined, as in "transactions processed per named user per CPU," or "per revenue plus number of employees." Combining metrics has a multiplying effect that can increase costs exponentially. It also dramatically increases the chance that customers will fall out of compliance with the license.

It is important to be aware of the many subcategories that often exist within license metrics, such as named users and CPUs. Sometimes customers drive software vendors to use too many categories to account for groups such as infrequent users; it becomes difficult, for example, to track users if there are 10 different user categories. Organizations concerned about managing this complexity should focus on a reasonable cost for the average user and the average use. When applying this method, some users will receive more value, others less, but the value for all users will be fair and reasonable. Organizations should establish new categories of users and define usage rights in advance to arrive at a sense of the average cost.

Organizations should recognize that, whatever metric is selected, some recognition of the value received can be "managed" via discounts. For example, when licensing a human resources (HR) software product that provides many employee self-service features, a financial institution in which most employees will be able to use this functionality may receive a smaller discount than a factory in which fewer employees can access computers. However, no discount will make a completely inappropriate metric more palatable.

2. Clear Definition of Usage Rights in the Contract

There are often many definitions of common license metrics — per employee, transaction, connection and so on. Customers should ensure their license metrics are defined clearly in the contract.

Even when license metrics are simple, it is important for customers to ensure that all assumptions made when devising the metric are documented, with examples, and with descriptions of how the counting is done and of what is excluded from the count. A metric should remain clear years into the contract.

Most disputes between vendors and customers over usage rights arise after the contract has been signed. By then, the contract's negotiators — both the software vendor's and the customer's — have often left their respective organizations, and there is often no other documentation to clarify what the stated metrics meant.

3. Predictable Costs

Most organizations need to budget in advance for software license and maintenance fees. They will be unable to budget accurately if they cannot predict the number of licenses they will need or the resulting maintenance and support fees. Vendors should therefore propose metrics that enable user organizations to predict annual costs at least a year in advance. Ideally, costs should be predictable throughout a product's life cycle.

If there are concerns about predictability, contracts should include wording that allows for a degree of variation and that needs only to be "trued up" at certain points in time — for example, an ability to license 10% or more without payment until the end of the year, rather than strict boundaries.

Without such flexibility, user organizations will struggle with yearly or multiyear cost projections, and they may have to ask senior executives repeatedly for additional funds. This will frustrate IT financial management initiatives.

The need for predictability has caused problems with many "pay as you go" or usage-based models (see "Will Pay per Use Help to Cut Software License Costs?").

4. Control and External Validation of Increases to Metrics

Customers should be able to exercise some control over increases to license metrics. They should also be able to validate increases externally.

Examples of metrics that they cannot control are those based on CPU speeds or CPU cores. User organizations cannot control the speed of processors or the number of cores in their processors. It is already difficult to purchase dual-core technologies, and 10-core technology will be available soon (an Intel Westmere-EX processor with 10 cores and two threads per core). We believe that by 2012 six cores will be the minimum available on the market, with 12 to 16 cores at the high end, and that by 2014 it will be 10 to 12 cores at the entry level and 30 cores at the high end. Organizations licensing by core will be forced into price increases for multicore processors when replacing servers, even if no additional business value or performance is delivered, as lower-core technologies will be unavailable (see "Optimize Your Software Licenses for Multicore x86 Systems").

Nor can customers control metrics devised by software vendors without a third-party auditing facility. IBM's Processor Value Unit (PVU) is a prominent example here, the PVU being a unit of measurement by which IBM software can be licensed. The number of required PVU entitlements is based on the processor technology (its vendor, brand, type and model number), as identified in IBM's PVU Table. Since there is no external third-party validation of this PVU metric assignment or calculation (as there was with the earlier MIPS metric), it is impossible for customers to predict pricing or when IBM may change the PVU Table for different processor technologies.

5. Measurability of Usage

A user organization should be able to measure usage against the licensing metric employed, according to terms defined in the license agreement. If the metric is not measurable, the user organization will be unable to prove its compliance, and the vendor will find auditing difficult.

If there is no inherent way to measure usage, the vendor should provide measurement tools that users find acceptable, and that will not adversely affect performance. Ideally, these tools should be provided by a third-party vendor that has no interest in the billing result.

Even if the vendor does not supply measurement tools, the user organization remains responsible for compliance with the license terms. It must therefore ensure it has a defensible way of calculating estimates of compliance. If the user organization has to invest in these tools at its own expense, it will need to factor these costs into its software budget.

In a cloud environment these tools will be provided by the vendor and usage reports should be made available to the customer online whenever required. Proactive notification of unusual usage patterns or when usage is nearing metric thresholds is recommended.

6. Direct Relationship Between Metrics and the Value Delivered

Some software vendors have begun pricing applications according to broad business metrics, such as annual revenue, number of employees and freight costs. But, in our experience, most customers struggle to make direct correlations between these metrics and the value delivered by the licensed software.

Annual revenue and freight costs can increase or decrease for reasons unrelated to the software. For example, higher fuel costs have increased the cost of goods sold and the cost of freight under management metrics.

Another drawback for customers is that in most cases where a business metric is used, the vendor increases its fees when the metric increases, but does not reduce them when it declines.

Vendors that employ business metrics should provide pricing based on metrics that can be influenced directly by the value the software brings to the customer's business.

7. Independence From Underlying Technology

The licensing metric should be independent of the technology platform — the hardware, virtualization technologies, operating system and database — on which the software runs. The user organization should not have to pay additional costs if the software vendor changes its technology environment — for example, to support Linux or move to a service-oriented architecture.

In many cases, a software vendor will need to develop code on the new platform to attract business from new customers. This constitutes the vendor's cost of doing business. Additional license fees are justified only if such changes add value by delivering new functionality that users need.

8. Fair Relationship of Price to Value

Users organizations should feel they are paying a fair price for the value they derive from the licensed software. This is probably the hardest criterion to evaluate. From a licensing perspective (excluding installation, integration, training and professional services), evaluation involves such activities as analyzing the return-on-investment (ROI), comparing the prices of competitive offerings, comparing the cost of building rather than buying a solution, and projecting license and maintenance fees over several years.

Similarly, when determining pricing, the software vendor should examine factors such as the availability and functionality of competitive offerings, the ROI for customers, and the software's ability to help customers increase revenue, reduce costs, improve service, avoid future costs, and increase profits or other key performance indicators. However, vendors have little incentive to take these considerations into account, unless there is direct competition from alternatives (see "Long-Term Trends That Will Radically Alter Licensing in the Software Market").

Market forces can only regulate software markets if customers exploit them and lock protections into their contracts before they commit to a vendor's product.

Finally, as a customer, it is important to realize that changing a licensing metric will not, on its own, enable you to reduce costs or control them better. In our experience, vendors respond to requests for changes with metrics designed to optimize their revenue, rather than help customers contain costs. Proper software asset management capabilities and processes are the only sure way to understand, control and optimize costs.

Bottom Line

User organizations should assess all newly proposed software license metrics against these eight criteria.

If the metrics the software vendor proposes are new and meet few of these criteria, and if you have leverage, be prepared to suggest alternatives.

If you have already purchased software from a provider and have no cost-effective switching options, you will struggle to persuade the provider to offer alternatives — which is why it is essential to apply these criteria at the outset.

If you have a metric you are happy with, ensure you lock in the right to continue to purchase the software under that metric in perpetuity, to avoid the risk that the provider subsequently changes the metric to a less suitable one and mandates a metric conversion. This is especially important for metrics like SaaS, IaaS and PaaS because of the subscription nature of the model, as the provider may change metrics whenever the contract comes up for renewal. Try to lock a desirable cloud metric into the renewal terms.

Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"Professional Software Negotiators: Adding Value Through Expertise"

"The Advantages and Disadvantages of Different Software License Models"

"Q&A: How to License Software Under Virtualization"

"IBM Processor Value Units: Have You Counted Yours Lately?"

"Long-Term Trends That Will Radically Alter Licensing in the Software Market"

Evidence

[1] Gartner's IT Asset Management Group fielded 3,484 inquiries from clients seeking advice on licensing. Many of these interactions included questions relating to metrics, and over 500 asked specifically about license and price modeling.

Note 1 Additional Terms That Affect the Price

Although the pricing metric is the primary mechanism that establishes the fees, other contractual terms that may be less explicit — organizational boundaries and locations, for example — also affect them. These therefore need to be factored into calculations and negotiations.

Note 2 Reasons for the Decline of Traditional Licensing Metrics

Licensing by named user remains common for many software applications, but can prove problematic when user communities extend to customers and business partners, because numbers then become larger and less predictable. In addition, software vendors are realizing that license revenue from named-user pricing diminishes as more processes become automated and the number of named users associated with processes declines.

The concurrent-user model suffers from similar problems. Also, it is difficult to count users accurately in a Web-based environment.

Existing capacity-based metrics are under pressure because of the complexity of managing them in environments with multicore processors, and because of the virtualization of computing.

This research is part of a set of related research pieces. See Roundup of Gartner's Business Intelligence Business Value Research for an overview.

Regional Headquarters

Corporate Headquarters
56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

Japan Headquarters
Gartner Japan Ltd.
Aobadai Hills, 6F
7-7, Aobadai, 4-chome
Meguro-ku, Tokyo 153-0042
JAPAN
+81 3 3481 3670

European Headquarters
Tamesis
The Glanty
Egham
Surrey, TW20 9AW
UNITED KINGDOM
+44 1784 431611

Latin America Headquarters
Gartner do Brazil
Av. das Nações Unidas, 12551
9° andar—World Trade Center
04578-903—São Paulo SP
BRAZIL
+55 11 3443 1509

Asia/Pacific Headquarters
Gartner Australasia Pty. Ltd.
Level 9, 141 Walker Street
North Sydney
New South Wales 2060
AUSTRALIA
+61 2 9459 4600