Benchmarking Software as a Service (SaaS) Subscription Pricing against Traditional Software Pricing: A Rational Approach to Conversion

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Why Should You Care?

If you made it past the title, it could mean that you buy in to the relevance of bridging perpetual license pricing and subscription pricing. This is no small feat as many SaaS pundits would suggest that the 'never the twain shall meet.'[1] At Technology Finance Partners (TFP), we very much agree that a successful move to providing software as a service requires far more than just a pricing model change, for the simple reason that virtually everything will need to change. A fundamental shift will need to occur regarding what you sell, how you sell, how you compensate sales, how you contract, how you bill and collect, how you support your customers, what you research and develop, how you train, what you communicate to your investors and more. Fortunately (for me), that paradigm shift will not be addressed in this paper, but rather how one, should they choose, could benchmark a subscription price for an existing software or new SaaS offering against pre-existing or analogous perpetual license pricing. If I have not driven you away yet, here are some reasons why you might care:

- You work for a traditional software vendor that is running into competitive bids with SaaS providers.
- You work for a traditional software vendor that is developing a road map to transition part or all of its business to the SaaS model and are analyzing transition phases and the potential revenue impact.
- You work for a start up in the SaaS space and are rationalizing your pricing against competitive traditional software vendors.
- You are a software purchaser and are trying to support a total cost of ownership (TCO) analysis between a software purchase and a SaaS subscription.
- You are a SaaS or pricing groupie and will read anything that has SaaS or pricing in its title.

Presuming that readers of this sentence fit into one of the above categories let's get right into pricing factors, the conversion formula, definitions, implications, a sample calculator and some final thoughts.

Pricing Factors

When we specifically talk about converting perpetual license pricing to subscription pricing, we are focused on applying an algorithm to two core elements – the perpetual license price and the associated annual maintenance. The goal of this application is to rationalize these basics into a

[1] Twain derives from the Old English *twegen*, meaning two. The phrase *never the twain shall meet* was used by Rudyard Kipling, in his *Barrack-room ballads*, 1892: "Oh, East is East, and West is West, and never the twain shall meet."

periodic price for a given term. It may come as no surprise that many early attempts at creating subscription pricing are executed by simply dividing the perpetual license and maintenance for the contemplated term by the subscription term, generally in months, and possibly applying a carrying cost or interest rate to account for the time value of money. Though conceptually in line at a high level, this simplistic approach is fraught with challenges as the resultant monthly subscription becomes arguably egregious the first month following the initial term, especially for shorter terms, and would essentially be little different than financing the perpetual license (a perfectly reasonable approach to positioning a perpetual license against a SaaS offering as spend reduces to maintenance only after the commitment term).

So, if the subscription term is not the appropriate divisor, what is? It is a matter of perspective. To some of our traditional software clients, who are just getting their feet wet in the flowing tide of the expanding SaaS sea, we guide on the concept of agnostic pricing – a method by which executive management is economically indifferent to the delivery model at the deal level.[2] This is driven by the simple principal that if you make it easier to buy through multiple economic delivery models you will increase sales (see figure 1). The divisor from this vantage can be referred to as the internal payback – the number of months from contract onset that management is willing to risk until full value of an equivalent traditional sale would be received; the potential reward for taking that risk being the possibility of renewal streams in excess of traditional maintenance renewals.

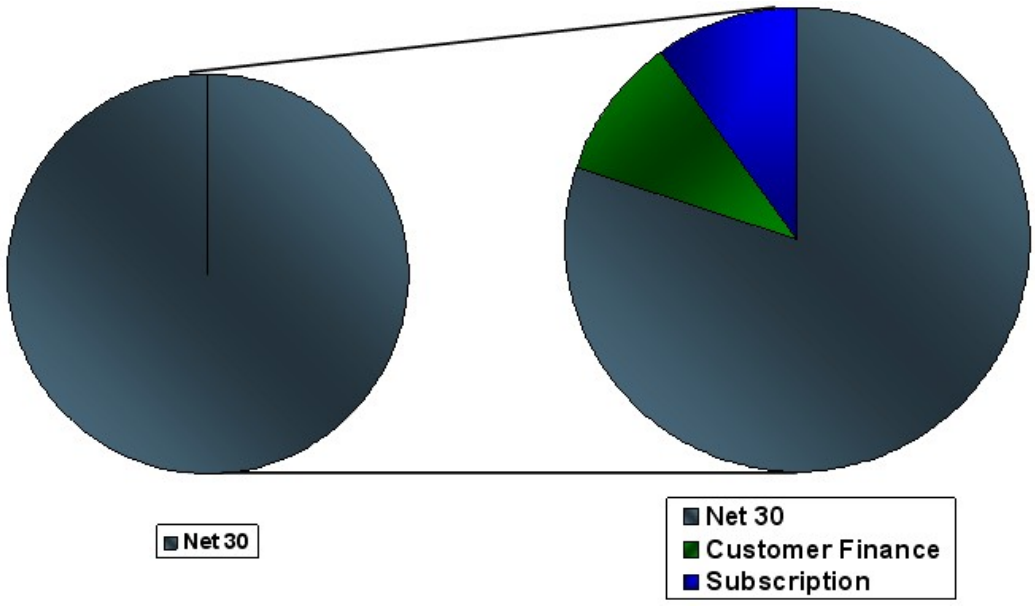

Figure 1: Increasing Revenue through Agnostic Flexibility

[2] The emphasis of 'deal level' is made here since consideration of the impact of pricing delivery models to corporate financial results is a completely different analysis that weighs incremental revenue and annuity streams against potential short term revenue losses, cash position and operational expense shifts.

From a customer's vantage, you are likely to focus more on useful life or the time horizon for which the given solution will meet your company's needs. In addition, such an analysis will center on the total cost of ownership (TCO), including variances in internal labor requirements, for each delivery model. SaaS start ups will take a similar TCO view when benchmarking against traditional providers of a similar solution, but also factor operational differences between a true SaaS business model and one likely weighted with the inertia of the traditional model.

With an acknowledgment to traditional vendors who are most likely in need of deriving a specific internal payback, our formula centers on that divisor, the development of which will be reviewed later in this paper. With a nod to SaaS start ups a SaaS commitment factor is also included and will be discussed later as well. So, without further ado, let's take a look at the rationalized conversion formula.

The Conversion Formula

The formula that follows assumes agnostic discount practices (you would apply the same discount level to a perpetual license as you would to a subscription), so list unit price is assumed for perpetual or subscription:

$$\mathbf{SaaS_{month} = PL \times (1 / pbk + \% \text{ maint} / 12) \times (1 - SaaS_{disc})}$$

Whereby:

- $SaaS_{month}$ = monthly subscription price per unit
- PL = perpetual license price per unit
- pbk = desired internal payback against perpetual license revenue
- % maint = annual relevant maintenance rate for perpetual license
- $SaaS_{disc}$ = discount factor related to commitment to software as a service

In essence this formula looks to capture the value of the perpetual license over a reasonable period of time plus the value of monthly maintenance, while considering an appropriate SaaS factor reduction to acknowledge the fundamental business model change that will eventually occur in a committed SaaS environment.

Expanded Definitions

In the spirit of never assuming, I'm going to go ahead and assume the first two terms in the formula ("$SaaS_{month}$" and "PL") are clearly understood by their short definitions. I'm also going to assume that "% maint" is reasonably clear, but may deserve commentary regarding the term "relevant."

Relevant maintenance rate

I come from the camp that believes support is an integral part of SaaS. Some providers will charge a subscription price PLUS support, confusing customers (and me) right out of the gate. Others will offer basic to premium packages in line with support levels to be provided which may be conceptually easier to align to, but may miss the mark on the vendor's true SaaS commitment level (especially since the notion of basic and premium may be better placed on levels of functionality). So, if you work for a software vendor in a competitive bid that has a pre-existing contractual relationship with the given prospect you may be best served by using your current contractual maintenance rate; the same would apply on the flipside if you are said prospect. If you are working on an impact analysis or transitioning to SaaS, consider using your vendor specific objective evidence (VSOE) maintenance rate or approximate average rate for the given region (especially if VSOE is one of those acronyms that tend to lie at the fringe of your business acumen). Through our clients and clients' competitors, we have seen rates as low as 10% and as high as 25% (or 29% if you care to confuse Microsoft's software assurance rate with support), so start ups will need to garner competitive intelligence specific to their offering when benchmarking maintenance rates.

In the hope of providing new information to some of you, we are not going to assume that internal payback or SaaS commitment level are at all clear and will spend more of your time attempting to provide clarity.

Internal payback

As previously inferred, the purpose of the internal payback factor is to ensure that perpetual license revenue will indeed be recouped, but in an evenhanded amount of time, both for the vendor and to provide attractive pricing for the customer. It is clear that only factoring the subscription term will not work. So, in an effort to provide market accepted pricing, but also in an attempt to recognize some of the challenges of moving to SaaS, additional factors have been added, so that the more complete set of factors is now:

- Subscription term in months
- Expected renewal months
- % of defaulters (customers who breach or cancel the contract, go out of business or stop paying for some other reason).
- Expected average number of months to default for that group
- Carrying cost (interest rate)

Taking these additional factors into consideration, the basic payback formula becomes:

Payback = term + renewal – % defaulters x (term + renewal – time to default)

The final payback value is then determined by factoring (through standard time value of money calculations) the basic payback value by the carrying cost.

The inclusion of these factors requires additional guesswork or analogous analysis. Expected renewal has much to do with software stickiness so consider maintenance renewal rates, how integrated the solution becomes with other applications, whether or not it is mission critical and how difficult it is to replace (a notion that becomes much different in the SaaS world from a pure up front cost perspective). Current collections data can be considered regarding default factors, but target market data should also be considered, especially if the move to SaaS is meant to address the SMB space. Finally, the interest rate used for carrying cost becomes a point of discussion as some will suggest it should simply be the cost of funds, others the interest rate that a customer could garner if financing and others the risk adjusted weighted average cost of capital (also known as the hurdle rate), reflecting the notion that money in hand can be leveraged for other project investments. Since we have already accounted for some risk, TFP tends to coach to the center – what is the target market and what is the average rate that customers in that market could expect for such short term financing.

SaaS Commitment Factor

So you've performed your due diligence, considered all of the appropriate variables and have produced your first round of subscription pricing to be presented to your company's pricing committee. However, before you get in front of that crowd, you decide to compare your pricing to what a customer might achieve through simply financing your perpetual license over the same given term, paying only annual maintenance thereafter (or you are a customer evaluating a subscription offer), and your analysis yields the chart in Figure 2. Interestingly enough (and I offer no survey results to support this arguably easy claim), some SaaS pundits would suggest that these two lines should never cross, while others would argue that the opportunity to pay as you go and enter into an operating expense arrangement should absolutely come at a premium.

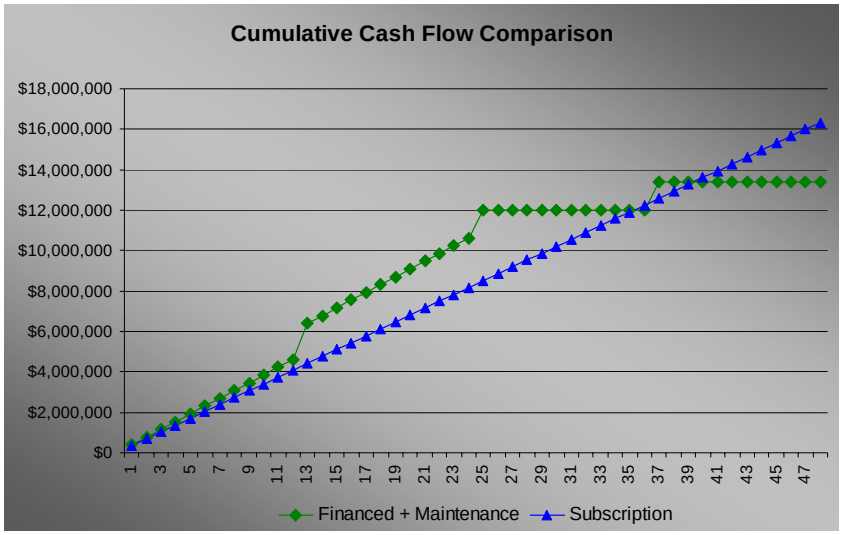

Figure 2: Subscription vs. Financed Perpetual

One option is to go back to your assumptions and consider adjustments. Another option is to consider applying a SaaS commitment reduction to your resultant price. On the surface, this appears to be a random 'haircut' or additional discount, but the logic behind this is in the future margins. If your company is planning to completely move to SaaS or create a true SaaS business unit or you are a start up in the SaaS space, then your future margin reality is quite different than a software vendor. Figure 3 provides a few comparisons.

Software Vendor	Software as a Service Provider
Significant R & D spent on maintaining multiple releases	R & D focused on one release
Significant customization can be involved yielding high revenue, but lower margin, PS engagements	Speed of implementation expected, minimal PS engagements
Support costs are scattered over multiple releases hampering self-service opportunities	Support costs focused on one current release facilitating self-service opportunities
Longer product development cycles and more expense introductions as migration paths integral part	Constant innovation with simultaneous release to all customers

Figure 3: Some Margin Drivers

A quick glance at the financials of SAP and Salesforce.com (SFDC) appears to support these margin factors, with SAP's cost of revenues representing 34% versus 24% for SFDC and R&D for SAP being an incremental 5% higher than SFDC. Of course SAP's revenues are ~19 times that of SFDC, whose relative newness and SaaS maturity also comes with higher marketing and sales and SG&A percents of revenue. An arguably more relevant example is that of Concur Technologies, who drove an erratic 49%+ cost of revenues down to a consistent ~40% cost of operations as it moved from license to subscription starting in the 2000-2001 time frame. The choice is yours, are you committed to SaaS?

The Calculator

The last page of this paper contains an interactive calculator (currently only available in the electronic version ;-). All of the variables described above are included. Please note that you may need to download and install the latest version of Adobe Flash Player (www.adobe.com) to use this calculator.

The basic process, which can be also found by clicking the “Help Open” button, is as follows:

- Enter perpetual license information. For list price, enter 0% for the discount. Maintenance % is assumed to be taken off net.
- Enter the subscription metrics, starting with term. The internal payback value is calculated by factoring term, likely renewal months, default activity and a carrying cost. To access these factors select "Calc Open."
- To compare the calculated subscription price to a financed perpetual model, simply input the number of units and an interest rate. The term will be set to equal that of the subscription. First year maintenance is included in the calculated monthly payment.
- The scenario button can be used to save desired scenarios.

In some cases, you may need to click on the middle of the last page to activate the tool. Rectangular input fields can either be modified by using the up and down arrows to the right or by double clicking the value and typing in the desired value.

Some Final Thoughts

- A true SaaS offering goes beyond software as it includes the physical hosting and IT support. The total cost of ownership (TCO) story (the vantage that solution purchasers take) becomes much more interesting when you factor all costs.
- Choosing the right unit or units is quite important and may change as you move from license to subscription. What drives value to your customer?
- An additional conversion step may be necessary if your SaaS offering goes beyond subscription into a utility model (per transaction, minute, click, etc.). Selecting units that you can actually measure is also important, but often overlooked.
- SaaS in the form of on-demand can create incredible value for some customers and merits the notion of an on-demand premium factor. It also is better executed with maturity and a mutli-tenant environment that can handle utilization fluctuations.
- For traditional software vendors moving to SaaS, don’t miss the opportunity to frame break, but do your homework. It is entirely possible that you don’t have the internal DNA to tackle SaaS, so benchmarking current SaaS providers, attending conferences like SaaSCon or pulling in consultative advice from companies like TFP should be considered.

About the Author

Drew Wright is a co-founder of Technology Finance Partners (TFP). At TFP Mr. Wright co-manages the return on investment, business case development and strategic pricing consulting practices. Mr. Wright has a unique understanding of the real value of technology, from IT infrastructure services to business use as well as the impact of key drivers and practical approaches around pricing and delivery models. Domain expertise and knowledge runs the technology gamut of employee/client-based, enterprise, middleware, infrastructure and service provider solutions.

Prior to co-founding TFP, Mr. Wright was the Vice President and General Manager of ADAC Capital. His professional career started in the medical device industry where he held senior engineering and marketing positions. Mr. Wright earned a BS in Mechanical Engineering from Cal Poly State University in San Luis Obispo and an MBA from UCLA's Anderson School. Mr. Wright's email is drew.wright@tfpllc.com.

About Technology Finance Partners

Technology Finance Partners (TFP) is a diversified business consulting and services firm supporting the sales and marketing efforts of technology vendors and their partners worldwide. The TFP Portfolio of Consulting and Services includes:

- Pricing Consulting for start ups and companies moving from perpetual to SaaS;
- Return on Investment jump start discovery for new ventures and auditing or enhancement of current practices;
- Sales Tools Creation of value analysis tools, pricing models and quote tools;
- Business Case Analysis program design, implementation and management; and
- Customer Finance Program design, implementation and management.