

TOTANGO

# The Missing SaaS Metric: Customer Retention Cost

By Kaiser Mulla-Feroze  
Chief Marketing Officer, Totango





“I’ve spent most of my career as a CFO in recurring revenue businesses. We succeed or fail based on whether we can economically acquire and retain customers. A lot of great CAC metrics have been developed over the years, but good metrics on the cost of retaining customers have been missing. I love the thinking that has gone into the development of the CRC framework. It fills a void in how we measure, evaluate, and benchmark SaaS companies.”

Mark Klebanoff, CFO,  
PayScale



“The CRC ratio gives companies a standardized method to finally measure, compare, and mitigate churn. As companies adopt recurring revenue models, the CRC ratio must become a key topic in every board session. The survival of a company depends upon the executive team understanding and managing this metric.”

Bruce Cleveland, General Partner,  
InterWest Partners



“It makes so much sense to pay attention to how much you are investing in the success of your customers. At Autodesk, we know that helping our customers succeed, from early in the relationship, greatly increases the likelihood that they’ll remain customers for a long time. Tracking a metric like CRC will help companies allocate investments more effectively.”

Jeff Wright, VP Customer Retention & Engagement,  
Autodesk



“I look forward to incorporating CRC principles into how we run our business and guide our investment choices for the future. It brings much-needed focus to the operational levers that drive the success of SaaS. Ultimately, having a good grasp of CRC and CAC together is critical in understanding and controlling the financial health of a subscription business.”

Jeremy King, VP Finance & Operations,  
InsightSquared

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# Introduction

Over the last several years, there have been a lot of great discussions and writings on SaaS metrics — from Monthly Recurring Revenue (MRR) and Annual Recurring Revenue (ARR), to Customer Acquisition Cost (CAC), to Customer Lifetime Value (CLTV) and churn. We've seen Bessemer's *6 C's of Cloud Finance*, Scale Venture's *Magic Number*, and David Skok's numerous insightful blogs and surveys on SaaS metrics.

What's behind all the vigorous debate and discussions is clear; traditional financial metrics don't cut it when it comes to looking at a SaaS (or any subscription or recurring revenue) business.

The key to running a successful subscription or recurring revenue business is the shift in mindset from acquiring new customers to retaining, nurturing, and growing existing customers — and keeping them with you as long as possible. But as we've seen over the last decade, this doesn't just happen naturally. Companies need to change the way they work (both operationally and culturally) to make this shift. In the SaaS industry, for example, one of the changes has been the creation of an entirely new business function called Customer Success.



**Traditional financial metrics don't cut it when it comes to looking at a SaaS business. The key to running a successful subscription or recurring revenue business is the shift in mindset from acquiring new customers to retaining, nurturing, and growing existing customers.**

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That said, compared to metrics on customer acquisition such as CAC, very little guidance exists for customer retention efforts. How much should you spend on customer retention? What factors should you incorporate? Are you underinvesting in customer retention compared to customer acquisition?

As we work with many SaaS companies on their Customer Success initiatives, we've developed a framework — the Customer Retention Cost (CRC) and the CRC Ratio — to assess and benchmark customer retention efforts in the industry. This is a critical missing component in the portfolio of metrics that SaaS executives, Boards, and investors should track and measure.

The purpose of this paper is to present our framework and initiate a broader discussion on this critical topic. As with CAC, there are a lot of nuances and dimensions, so we're sure people will have valid opinions and arguments. We welcome comments and hope that this will make for a richer discussion and help push the industry in the right direction.



**In the SaaS industry, one of the changes has been the creation of an entirely new business function called Customer Success.**



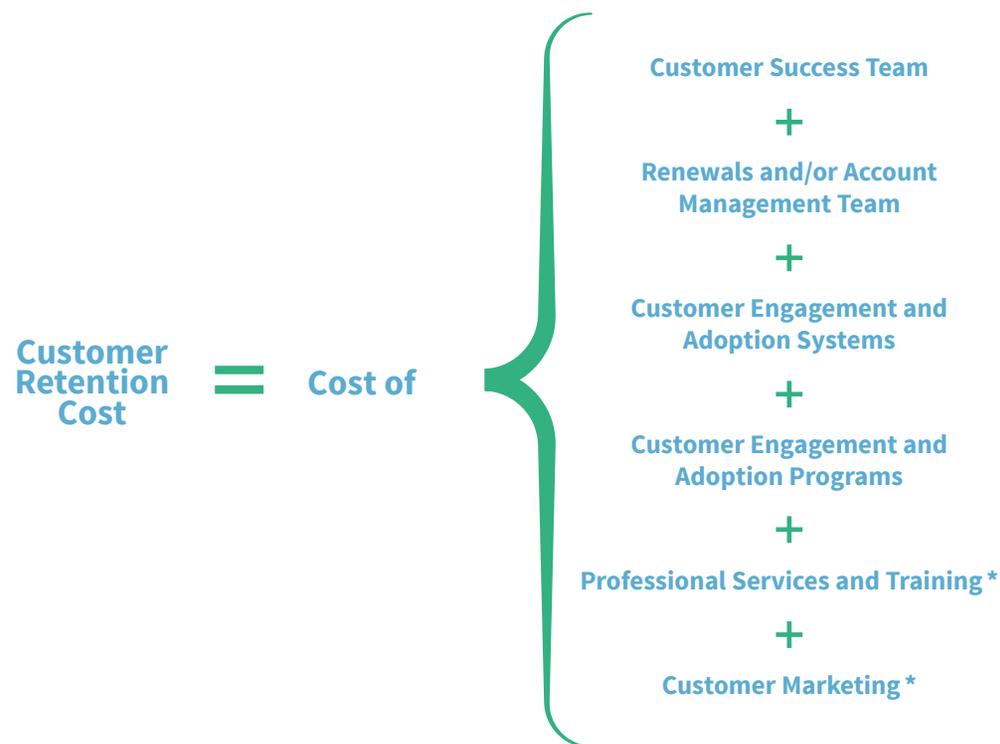
**Compared to metrics on customer acquisition, very little guidance exists for customer retention efforts. Customer Retention Cost is a critical missing component in the portfolio of metrics that SaaS executives, Boards, and investors should track and measure.**

Special thanks to Bruce Cleveland of InterWest Partners for being the driver and inspiration behind the development of this framework.

# Defining Customer Retention Cost Metrics

## Customer Retention Cost (CRC)

In simple terms, customer retention cost should include all expenses a company incurs in retaining and cultivating its existing customers.



In a SaaS business, you are always trying to protect all of your revenue, not just the revenue that is up for renewal in the next month or quarter.

\* More on this in *Appendix: Considerations in Calculating CRC Metrics*

## Customer Retention Cost Per Customer

For a simple way to calculate the average annual cost to retain a customer, divide annualized customer retention cost (e.g. CRC for the last quarter x 4) by the total number of active customers.

$$\text{Annual CRC Per Customer} = \frac{\text{Annualized CRC}}{\# \text{ Active Customers}}$$

Multiply this by the average customer lifetime to come up with the total CRC over the lifetime of a customer.

$$\text{Avg Lifetime CRC Per Customer} = \frac{\text{Annualized CRC}}{\# \text{ Active Customers}} \times \text{Avg Customer Lifetime}$$

Depending on the nature of your business, there could be some nuances to consider. For example, what should you use for the number of active customers — should it include free/freemium customers? Should you calculate different figures for different customer segments — e.g. self-service vs. enterprise customers. For more on this, see *Appendix: Considerations in Calculating CRC Metrics*.

## CRC Ratio

The CRC ratio should attempt to answer the question: how much are we spending (on the dollar) to make sure we can retain and renew every dollar of revenue from our existing customers. The point is that in a SaaS business, you are always trying to protect all of your revenue, not just the revenue that is up for renewal in the next month or quarter. In its simplest form, the CRC ratio can be calculated as follows:

$$\text{CRC Ratio} = \frac{\text{Annual CRC}}{\text{Annual Revenue or ARR}}$$

However, the CRC ratio is a tricky one. Similar to all the debates on calculating the CAC ratio, there are a number of different (and valid) factors to take into account, which are discussed in *Appendix: Considerations in Calculating CRC Metrics*.

After taking into account some of these factors, our preferred way of looking at the CRC ratio is as follows:

$$\text{CRC Ratio} = \frac{(\text{CRC} + \text{Proserv Costs} - \text{Proserv Revenue})_{\text{Year N}}}{(\text{Subscription or License Revenue})_{\text{Year N}}}$$

# CRC Guidelines

For the purpose of developing guidelines, we've broken down CRC into three major components to provide companies some practical guidance.

## 1. STAFFING

Typically staffing is the biggest cost component in CRC for most companies today. There have been a few discussions recently on the optimal staffing ratio for Customer Success Managers (CSMs).

### Revenue Per CSM

Revenue per CSM is a common way companies think about customer success staffing. The most frequently quoted figure of \$2M revenue per CSM comes from Jason Lemkin's [blog](#) from October 2013. From what we've seen in practice, this figure is significantly influenced by a few considerations specific to your company. We recommend that companies take these into account in order to figure out the right staffing level:

- **Sophistication of your product:** The more sophisticated or technical your product, the more CSMs, and maybe even Customer Success Engineers (CSEs), you will need.
- **Maturity of your space:** In new and emerging industry segments, customers will need more handholding and assistance given that the market may be in an "education" phase.
- **Maturity and size of your company:** Typically, younger companies that are still in the early stages of figuring out their product and understanding customer requirements, may need a higher staffing ratio compared to more established companies, all else being equal.

To boil this down to a simple framework, we combined the above three considerations into a single factor we call “complexity.” Of course, there are no hard-and-fast rules on what is low, medium, or high complexity. Each company will need to assess this for itself based on how it stacks up on the three considerations above.

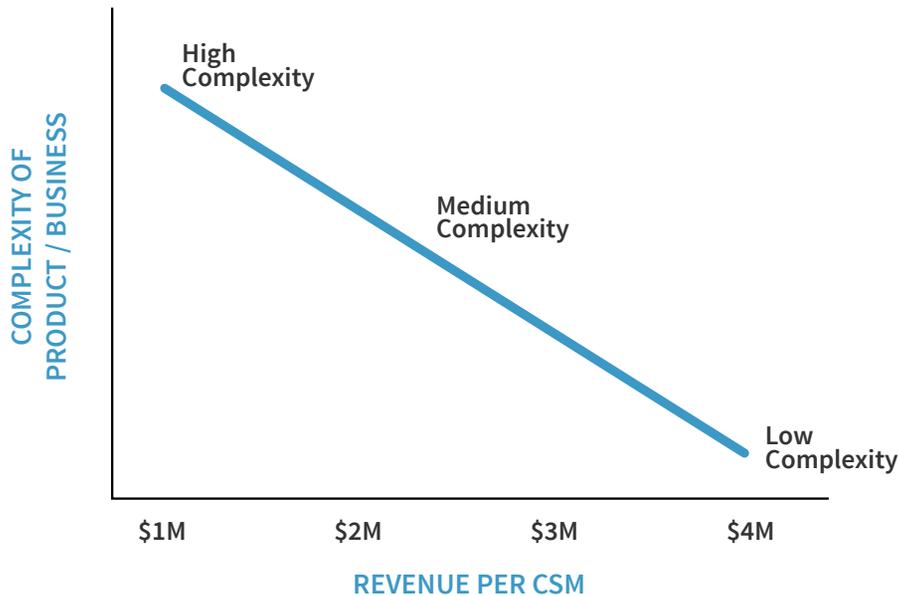
Based on complexity, we have developed the guidelines below to help companies on staffing for their Customer Success initiatives.

## Customer Success Staffing Based on Product / Business Complexity

**Low complexity:** 1 CSM for every \$4M in ARR (7.5% of ARR \*)

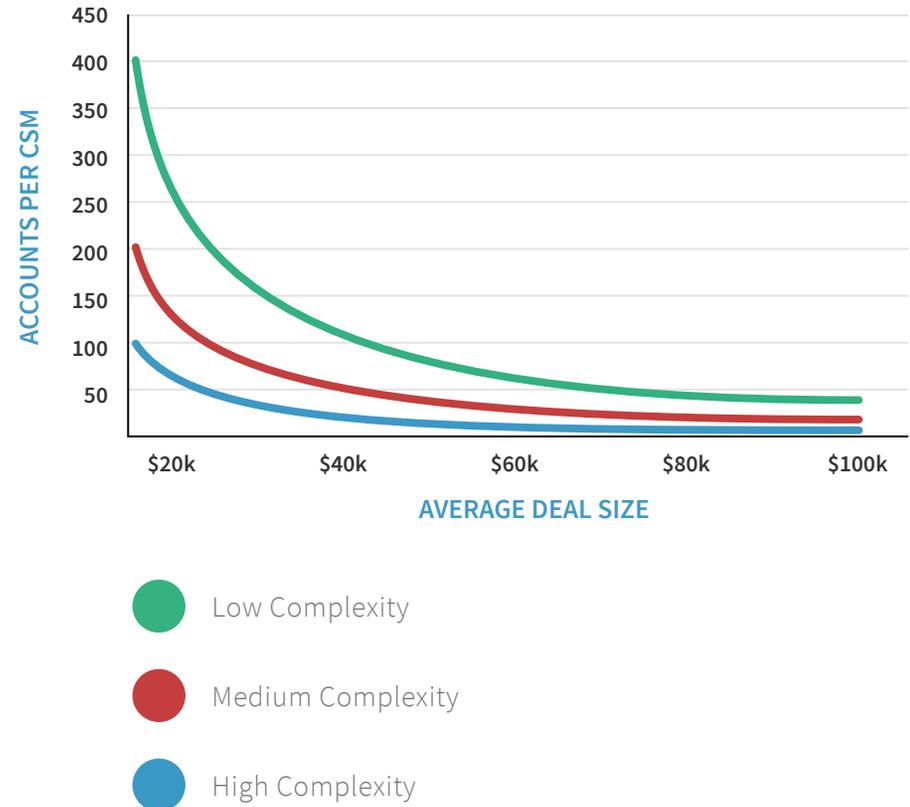
**Medium complexity:** 1 CSM for every \$2M in ARR (15% of ARR \*)

**High complexity:** 1 CSM for every \$1M in ARR (30% of ARR \*)



## Accounts Per CSM

Another angle to look at CSM staffing is: how does the revenue per CSM translate into the number of accounts a CSM can manage? Below is a graph that plots this depending on the average deal size or average selling price (ASP) of your product.



\* Assuming fully loaded cost of a CSM (including allocation of management expense) to be \$300k per year.

## OTHER CUSTOMER RETENTION STAFFING

### Customer Success Engineers (CSEs)

Companies need to take into account the mix and skillset of their Customer Success staff. For example, if your product is highly technical in nature, you may substitute some of the headcount (based on the guidelines above) with CSEs who can complement CSMs on engaging and helping customers on more technical issues.

### Customer Success Executives

Typically, companies have CSMs reporting to a Director of Customer Success. In our experience, we've seen the span of control for a Director of Customer Success range from 3 to 10, with 5 to 6 being the most common. Depending on team size, companies may also have a Chief Customer Officer or VP of Customer Success running the group. In the above calculations, we have factored Customer Success executives into the fully loaded cost of a CSM by including an allocation of management expense.

### Renewals Team

Once companies reach a particular point (often measured in terms of number of customers), they may find it cost-effective to set up a separate renewals function to handle the volume of renewals and the accompanying process. The above guidelines do not account for a renewals team.

(Also refer to *Why is customer support not included in CRC?* in Appendix: *Considerations in Calculating CRC Metrics.*)

## 2. SYSTEMS & TECHNOLOGY

As companies look at customer success systems and technology, we think it is important to first understand the nature and purpose of such solutions. We divide customer success systems and technology into two broad categories:

### CSM Productivity Tools

These are applications that help CSMs manage their day-to-day jobs and help Customer Success executives manage their teams — the equivalent of Salesforce for customer success professionals. These are primarily workflow and business process management applications. In fact, in many companies, Customer Success teams can achieve this using Salesforce.

Think of this as a per-CSM or per-employee cost. It is of a similar order of magnitude as Salesforce or another CRM tool for your sales team. **As a rule of thumb, companies spend about 1% of the CSM team cost on CSM productivity tools. This works out to effectively 0.1-0.3% of revenue.**

### Customer Success Monitoring Systems

This is technology that helps companies monitor customer engagement and adoption, compute predictive health, provide early warning signals based on leading indicators of churn, spot upsell opportunities, and identify areas to drive further engagement and business value in the user base. These are event-based monitoring systems running on big data and predictive technology.

Think of this as a percentage of revenue as it is an essential component of a SaaS company's stack to assess and drive customer success. Based on our experience working with SaaS businesses, **as a rule of thumb, companies spend about 0.5%-1% of revenue on customer success monitoring systems.**

### 3. PROGRAMS

Customer success programs are a critical part of scaling customer retention efforts. An important consideration and distinction to make here is between customer success programs and customer marketing, which typically resides in the Marketing organization. There are no strict rules that dictate what is customer success vs. customer marketing, but we've seen many organizations put customer nurture and retention programs under the Customer Success organization (executed in collaboration and coordination with Marketing), while traditional customer marketing programs such as user groups and conferences continue to be run by Marketing.

Customer nurture and retention programs typically focus on best practice development and sharing, executing campaigns to drive product adoption and engagement, running new feature webinars and training, and building a customer community.

**As a rule of thumb, we recommend companies spend 1-2% of revenue on customer success programs.** In practice, we see a much wider range in what companies spend in this area, primarily because it is a new discipline and Customer Success teams are still figuring out the right nature and volume of programs.

(Also refer to *Should customer marketing be included in CRC?* in *Appendix: Considerations in Calculating CRC Metrics.*)

#### **Does CRC factor in cost of upsells and add-on sales vs. only revenue preservation?**

In companies where revenue expansion within existing accounts is the sole responsibility of the customer success or account management team, the cost of upsells and add-on sales is baked into CRC.

However, it is a reasonable assumption that in most companies, the actual “selling” related to upsell and add-on sales is not done by the customer success or account management team but by the sales team. In these instances, even though customer retention and customer success efforts may positively impact revenue growth within existing accounts, CRC does not factor in the complete costs associated with this. The cost of upsell and add-on sales would also need to include the costs of the sales team and their commissions, which are typically not included in CRC.

# Using CAC & CRC Together

Looking at CAC and CRC together — relative to one another and combined — is useful for SaaS companies to get an overall view of what it takes to run a recurring revenue business.

In doing so, you should remember that CAC is a one-time cost to acquire a customer whereas CRC is an annual recurring cost to retain the customer.

## Comparing CAC and CRC to Understand Relative Investment

Comparing CAC and CRC for your business can be illuminating. If your CAC ratio is 1.5 and your CRC ratio is 0.15 — or alternatively if 50% of your revenue comes from existing customers but you are spending 5X on CAC compared to CRC — then it can help you calibrate your business better and gauge your relative spend between CAC and CRC. It's a well-known fact that acquiring a new customer costs 3-6X the cost to retain one. That is well and good, but in a subscription business, we need to look at whether we are underinvesting in retaining customers as compared to acquiring customers. Where can you get better bang for your buck with incremental investment? Looking at CAC and CRC this way can help you assess whether there is merit to shift funding from one to the other.



In a subscription business, look at whether you are underinvesting in retaining customers as compared to acquiring customers. Where can you get better bang for your buck with incremental investment?

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## Combining CAC and CRC to Understand the Financial Health of Your Business

It is also useful to look at the combined CAC and CRC on a per account or customer basis, i.e. it takes \$X to bring in \$1 of annualized revenue and it then costs an additional \$Y annually to retain and renew this \$1 of revenue. This can give us a good sense of what it takes to acquire and retain a customer, and then figure out the financial health of the business based on the ability to monetize customers beyond CAC plus CRC.



Figure out the financial health of your business based on the ability to monetize customers beyond CAC plus CRC.

The next section takes a look at the overall profit and loss analysis for a customer.



CAC is a one-time cost to acquire a customer whereas CRC is an annual recurring cost to retain the customer.

### Should CRC reduce over the lifetime of a customer?

Technically speaking, one could argue that CRC should reduce over the lifetime of a customer, assuming that at some point a customer reaches a level of stability or steady state. However, in reality we would not recommend factoring a lower CRC over the lifetime of a customer. There are two reasons for this: (1) The SaaS business is all about ongoing innovation and constant upgrades. In this environment, there is an ongoing need for customer education and engagement. In fact, it could be argued that as a customer deployment gets more complex and your footprint increases, CRC could increase. Even when the increased footprint comes with more (i.e. upsell) revenue, CRC relative to revenue may increase because of the increased complexity of the deployment. (2) Accounts are never static; you have new users and sometimes also new administrators, executive sponsors and decision-makers that may come into the picture over time. Even if your deployment doesn't change dramatically, you need to invest in engaging with new users and making sure they are fully up-to-speed.

# Profit & Loss View of a Customer

Let's now extend the discussion on CAC and CRC to the overall P&L view of a customer.

As a starting point, below are the average costs, as a % of revenue, for SaaS companies before accounting for CAC and CRC:

**20-30%**

Cost of revenue  
(or COGS)

**10-20%**

Research &  
Development (R&D)

**10-15%**

General &  
Administrative (G&A)

This adds up to 40-65% of revenue, i.e. 40-65 cents of every \$1 of revenue earned is eaten up by COGS, R&D, and G&A. This leaves somewhere between 35-60% of revenue for CAC, CRC, and operating margin.

CAC guidelines for a SaaS company recommend a CAC ratio of 1 or less. However, we think that most private SaaS companies are operating at a CAC ratio of at least 1.5 today and more likely in the region of 2, i.e. the cost to acquire a new customer is 150-200% of first-year revenue. Assuming a customer lifetime of 5 years over which to spread the cost, CAC would eat up another 30-40% of annual revenue earned from the customer (150-200% divided by 5 years).

Based on the CRC guidelines earlier in this report, let's assume an additional 20-30% of revenue goes toward CRC. So CAC and CRC would together eat into 50-70% of annual revenue. This puts us at breakeven or in negative territory from an operating margin standpoint when we take a P&L view of a customer.

When we take into account that many SaaS startups still have a churn challenge (which means that average customer lifetime may be well below 5 years), the reality is that today most SaaS companies make a significant operating loss. In fact, even most public SaaS companies are still not making an operating profit (see next section on *Public SaaS Company Metrics*).



Today most SaaS companies make a significant operating loss.

If this is the case, the question is how will the SaaS business model make financial sense. The answer is that over the longer term, the combination of CAC and CRC will have to come down while at the same time driving up the lifetime revenue earned from each customer. Given the highly fragmented and competitive nature of the market today, SaaS businesses are highly optimized for top-line growth, but ultimately SaaS companies will have to control CAC and CRC more closely. It is also reasonable to assume that over time, as the SaaS industry matures and potentially consolidates, CAC (and to some extent CRC) will drop naturally as well.



Over the longer term, we think SaaS companies will have to aim for a P&L that will look something like the following:

COGS: **25%**

R&D: **15%**

G&A: **10%**

CAC & CRC: **30%\***

Operating Margin: **20%**

\* The split between CAC & CRC will depend on the maturity and age of the business.

# Public SaaS Company Metrics

The following is a GAAP P&L, CAC, and CRC summary of five public SaaS companies:



										
(All numbers in \$ Thousands)	Feb'13 - Jan'14	Feb'12-Jan'13	Feb'13-Jan'14	Feb'12-Jan'13	Jan'13-Dec'13	Jan'12-Dec'12	Jan'13-Dec'13	Jan'12-Dec'12	Jan'13-Dec'13	Jan'12-Dec'12
<b>GAAP P&amp;L*</b>										
<b>REVENUE</b>										
Subscription & Support	3,824,542	2,868,808	354,169	190,320	349,804	204,526	333,556	252,902	85,095	52,756
Professional Services	246,461	181,387	114,769	83,337	74,846	39,186	80,952	55,923	10,823	5,657
Total Revenue	4,071,003	3,050,195	468,938	273,657	424,650	243,712	414,508	308,825	95,918	58,413
<b>COST OF REVENUE (COGS)</b>										
Subscription & Support	711,880	494,187	69,195	39,251	87,928	63,258	55,269	41,857	24,681	16,216
Professional Services	256,548	189,392	107,615	77,284	67,331	40,751	79,925	53,706	13,298	8,442
Total Cost of Revenue	968,428	683,579	176,810	116,535	155,259	104,009	135,194	95,563	37,979	24,658
<b>GROSS MARGIN</b>	<b>3,102,575</b>	<b>2,366,616</b>	<b>292,128</b>	<b>157,122</b>	<b>269,391</b>	<b>139,703</b>	<b>279,314</b>	<b>213,262</b>	<b>57,939</b>	<b>33,755</b>
<b>OPERATING EXPENSES</b>										
R&D	623,798	429,479	182,116	102,665	78,678	39,333	78,311	52,739	23,321	18,799
G&A	596,719	433,821	65,921	48,880	61,790	34,117	51,694	38,468	18,655	11,388
Sales & Marketing	2,168,132	1,614,026	197,373	123,440	195,190	103,837	210,080	154,294	62,769	37,776
Total Operating Expenses	3,388,649	2,477,326	445,410	274,985	335,658	177,287	340,085	245,501	104,745	67,963
<b>OPERATING MARGIN</b>	<b>(286,074)</b>	<b>(110,710)</b>	<b>(153,282)</b>	<b>(117,863)</b>	<b>(66,267)</b>	<b>(37,584)</b>	<b>(60,771)</b>	<b>(32,239)</b>	<b>(46,806)</b>	<b>(34,208)</b>
*Shows the most comparable last two fiscal year P&L numbers for each company.										
<b>GAAP P&amp;L EXPENSES (% of revenue)</b>										
Cost of Revenue	24%		38%		37%		33%		40%	
R&D	15%		39%		19%		19%		24%	
G&A	15%		14%		15%		12%		19%	
Sales & Marketing (CAC + CRC)	53%		42%		46%		51%		65%	
<b>Total</b>	<b>107%</b>		<b>133%</b>		<b>116%</b>		<b>115%</b>		<b>149%</b>	
<b>OPERATING MARGIN</b>	<b>-7%</b>		<b>-33%</b>		<b>-16%</b>		<b>-15%</b>		<b>-49%</b>	
<b>CAC &amp; CRC RATIOS**</b>										
Scale Magic Number	0.47		0.99		0.93		0.50		0.60	
Traditional CAC Ratio (Inverse of Scale Magic Number)	2.12		1.01		1.08		1.99		1.67	
Adjusted CAC Ratio (Assuming 80% of Sales & Marketing is CAC)	1.70		0.81		0.86		1.59		1.34	
CRC Ratio	0.11		0.08		0.09		0.10		0.13	

\*\*See next page for formulas used.

## CAC & CRC Formulas Used for Public SaaS Companies

<b>Traditional CAC Ratio</b>	<b>=</b>	$\frac{(\text{Sales \& Marketing Expenses})_{\text{Year N}}}{(\text{Revenue})_{\text{Year N}} - (\text{Revenue})_{\text{Year N - 1}}}$
<b>Magic Number</b>	<b>=</b>	$\frac{1}{\text{Traditional CAC Ratio}}$
<b>Adjusted CAC*</b>	<b>=</b>	$(\text{Sales \& Marketing Expenses}) \times 0.8$
<b>CRC</b>	<b>=</b>	$(\text{Sales \& Marketing Expenses}) \times 0.2$
<b>Adjusted CAC Ratio</b>	<b>=</b>	$\frac{(\text{Adjusted CAC})_{\text{Year N}}}{(\text{Revenue})_{\text{Year N}} - (\text{Revenue})_{\text{Year N - 1}}}$
<b>CRC Ratio</b>	<b>=</b>	$\frac{(\text{Adjusted CRC})_{\text{Year N}}}{(\text{Revenue})_{\text{Year N}}}$

\*See following page for explanation of Adjusted CAC.

Note: For simplicity, in the CAC and CRC ratio calculations here, Professional Services revenue has not been separated from Subscription revenue.

There are a few important points to understand when looking at the CAC and CRC ratio calculations in this section.

### **Adjusted CAC Ratio: Separating CRC from CAC**

Strictly speaking there shouldn't be much confusion between calculating CAC and CRC. What is considered customer acquisition as opposed to customer retention is generally reasonably distinct and clear. For example, most SaaS companies do not consider customer success to be part of their customer acquisition cost.

However, when it comes to public company numbers, things get a little messy between the existing definitions of CAC and the proposed CRC metric. The reality is that Bessemer's CAC Ratio and Scale's Magic Number (when calculated for public companies) are actually not only CAC, but a combination of CAC and CRC -- because sales and marketing numbers reported by public companies include customer success and customer retention costs in addition to customer acquisition.

As a result, the public benchmarks for CAC, such as the CAC Ratio and Scale's Magic Number, are higher than the numbers in reality. The actual CAC (i.e. the amount spent to attract \$1 of new revenue) is lower than what public benchmarks computed based on sales and marketing costs would suggest because they include customer success and customer retention costs as well. This is something that Bessemer and others have acknowledged as a refinement needed in calculating CAC. In the above calculations, we have made adjustments to the traditional CAC ratio by backing out estimated customer success and customer retention costs from the publicly reported sales and marketing expenses. Based on our experience, we make a simplifying assumption that 75-85% of sales and marketing expenses reported by public companies is for customer acquisition and 15-25% is for customer retention.



**Sales and marketing numbers reported by public companies are not only CAC but also include customer success and customer retention costs.**

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For a high-growth company, GAAP P&L will show a higher percentage for Sales & Marketing as compared to the P&L view of a customer, where customer acquisition cost is spread over the lifetime of a customer to match the multi-year revenue stream.

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## Calculating CAC Ratio using Net New Revenue

When calculating the CAC ratio, Scale's Magic Number, or the adjusted CAC ratio, we look at the change in revenue over two periods as a measure of the revenue gained through new customer acquisition. In reality, the change in revenue over two periods also includes the impact of churn and upsell from within the existing customer base. This is another area of potential refinement to the CAC ratio and something companies can consider as they look at their metrics. However, this is not data that is available for public companies.

## GAAP Treatment of Sales & Marketing

For both public and private SaaS companies, sales and marketing expenses related to customer acquisition are recognized in the year they are incurred even though revenue from new customers can come in over several years. This means that CAC is effectively frontloaded in the first year, which is a reasonable way to look at it given that the recurring revenue from customers is not guaranteed (with the exception of multi-year contracts) and it is not possible to know in advance the number of years to allocate CAC over.

For a high-growth company that is investing heavily in customer acquisition today (with the expectation that the benefit of this investment will continue for many years by way of recurring revenue), GAAP P&L will show a higher percentage for Sales & Marketing as compared to the P&L view of a customer (as analyzed in the previous section), where customer acquisition cost is spread over the lifetime of a customer to match the multi-year revenue stream. This is true even after adjusting Sales & Marketing to back out customer success and customer retention costs. This is an important point to keep in mind when looking at GAAP P&L numbers.

# Appendix

## Considerations in Calculating CRC Metrics

Below is a discussion on some of the factors that we think may raise questions or arguments on calculating CRC and the CRC ratio. In coming up with our preferred approach, we've used two guiding principles:

- 1. Keep it simple:** Given the nature of the SaaS business and the inherent difficulty in attributing retention to specific activities — as well as the specific timing of these activities — it is easy to get into a rathole and overengineer the CRC metric. After much thought and running various calculations, we've realized that less is more. The benefits of overengineering CRC is not worth it as ultimately things balance out over time.
- 2. Allow for benchmarking/comparability:** Given that public SaaS companies do not disclose fine-grained figures on their business operations, it's helpful to define metrics in a way that makes it as easy as possible to come up with benchmarks and comparables. This is a difficult issue specifically for CRC since public companies do not provide customer retention costs, but we can make some simplifying assumptions — e.g. 15-25% of annual sales and marketing costs are CRC.

## CUSTOMER RETENTION COST

### Should professional services be included in CRC?

This can be a philosophical debate. Should professional services be seen as a part of customer acquisition costs or customer retention costs? Bessemer, for example, provides a refined CAC ratio which includes professional services as a part of customer acquisition. You could go either way, but intuitively most people think of customer acquisition costs to be sales and marketing. We also think that professional services is an important part of retention. If your customers do not have a successful onboarding, you’ve lost the retention battle right at the start. So we prefer to consider professional services as a part of customer retention.

Note, however, that if you earn revenue from professional services, you should take this into account as well. Because public SaaS companies typically itemize professional services revenue and costs, we have called this out in our preferred formula for the CRC ratio — to make it explicit vs. assuming it is bundled into CRC.

$$\text{CRC Ratio} = \frac{(\text{CRC} + \text{Proserv Costs} - \text{Proserv Revenue})_{\text{Year N}}}{(\text{Subscription or License Revenue})_{\text{Year N}}}$$

For public SaaS companies, professional services is part of cost of revenue or COGS. In the interest of easy comparability, you may choose to keep professional services as part of COGS and not add it to CRC. For example, in the earlier analysis of public SaaS company financials, we kept professional services revenue as part of total revenue and professional services costs as part of COGS.

### Should customer marketing be included in CRC?

Should the cost of customer marketing (people and programs) be counted under customer retention costs? If we had to be precise, you could argue going down this road. However, to keep things simple and allow comparability with other companies, we prefer excluding customer marketing from CRC. Also, we would argue that any marketing, including customer events and user conferences (which is one of the biggest “customer marketing” expense) ultimately help drive customer acquisition. Dreamforce, for example, is one of the most important sales and customer acquisition events for salesforce.com. However, you could go the other way — i.e., attribute some portion of marketing to customer marketing and include it in CRC — and you wouldn’t be wrong.

### Why is customer support not included in CRC?

For SaaS companies, the established practice is to place cost of support under cost of revenue (or COGS). Financials of public SaaS companies reflect this as well. As a result, we have left cost of support under COGS in our P&L analysis and not added this to CRC to avoid double-counting.

It could be debated whether cost of support should be under COGS or CRC. We think that the widely accepted practice of putting it under COGS is in fact appropriate: the cost of support can be seen as a necessary part of keeping the product up and running (just as hosting and data center costs are). On the other hand, CRC is not really about keeping the product up and running. It is about customer success teams, systems, and programs that are put in place to drive greater customer engagement and adoption.

## CRC RATIO

### Should the denominator be renewal revenue or overall revenue?

This is a question we commonly get: why should the denominator not be renewal revenue since the purpose of customer retention is to retain customers who are up for renewal? Though that is the purpose of customer retention efforts, the point is that in a SaaS business, you are always working on protecting all of your revenue, not just the revenue that is up for renewal in the next month or quarter. As a result, the denominator for CRC Ratio should be overall revenue and not just renewal revenue.

### Should the denominator be ARR or revenue?

Strictly speaking, you want to see CRC relative to the business it is supporting, which most people would consider to be the full ARR for current customers (i.e. the annualized recurring revenue runrate at any given point in time). However, it may make more sense and be easier to use GAAP revenue:

- If ARR is used, you should strictly speaking include CRC for the entire duration of the ARR being counted. Since total ARR at any given time is a combination of annual revenue streams starting and ending at different points in time, calculating the matching CRC would be virtually impossible.
- We think GAAP revenue is a better reflection of the actual business that customer retention efforts support in a given period. In other words, the CRC incurred in a given period is really for the revenue recognized (vs. expected recurring revenue over time). Hence GAAP revenue is a better match for CRC spent in a given period.

## CRC PER CUSTOMER

### Number of customers (should free users be included?)

This should be relatively straightforward for most businesses. Using the total number of paying/active customers will give you a good idea of CRC per customer. As a general rule, we would exclude free users/customers from this calculation. However, if your business is heavily dependent on a freemium model (as a longer-term source of revenue through premium services or as a marketing vehicle), we think the concept of CRC is important for freemium customers as well. You can argue that this is really a part of CAC vs. CRC, which is also a valid approach to look at it. Either way, we would suggest calculating the ratio separately for freemium customers.

### Average CRC per customer

Does it make sense to use an average CRC per customer for your business? This depends on whether you have a relatively uniform customer base. If you don't, then it may make more sense to calculate CRC per customer for each distinct segment such as self-serve and enterprise customers (and potentially freemium customers based on the explanation above).

# Resources

[Startup Killer: the Cost of Customer Acquisition \(David Skok\)](#)

[SaaS Metrics 2.0 – A Guide to Measuring and Improving what Matters \(David Skok\)](#)

[SaaS Metrics 2.0 – Detailed Definitions \(David Skok\)](#)

[Why Churn is SO critical to success in SaaS \(David Skok\)](#)

[Manage Customer Success to Reduce Churn \(David Skok\)](#)

[The Customer Acquisition Cost \(CAC\) Ratio: Another Subtle SaaS Metric \(Dave Kellogg\)](#)

[Bessemer's Updated 5 C's of Cloud Finance \(Bessemer Venture Partners\)](#)

[One Number to Manage Your SaaS Sales & Marketing Spend: The CAC Ratio \(Bessemer Venture Partners\)](#)

[Bessemer's 6 C's of Cloud Finance \(Bessemer Venture Partners\)](#)

[Magic Number Math \(Scale Venture Partners\)](#)

[The \\$2 Million Dollar Man \(/Woman\): How to Think About Scaling Your Customer Success Team \(Jason Lemkin\)](#)

## ABOUT TOTANGO

Totango is the leader in customer success and user engagement for cloud apps. The company helps SaaS vendors and online subscription services take a data-driven approach to reducing churn, driving customer success, and maximizing the revenue potential from existing customers. Totango monitors customer behavior and usage patterns — along with critical relationship data from CRM, billing, and other systems — to generate insights on customer health and engagement. The company's platform combines big data analytics with powerful segmentation and predictive tools to guide vendors in taking the right actions with each customer to create an active, engaged user base.

**You can find more customer success resources at:**

<http://www.totango.com/resources>



[info@totango.com](mailto:info@totango.com)



[1-800-634-1990](tel:1-800-634-1990)



[www.totango.com](http://www.totango.com)

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