



The 8 SaaS Metrics That Matter

WHAT INVESTORS LOOK FOR WHEN FUNDING TECH COMPANIES



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INTRODUCTION

MRR. CAC. CLTV. There are a lot of acronyms and buzzwords about how to measure startup success these days, especially for SaaS (Software as a Service) companies. While there may be different views on which metrics to track, one thing is certain: you need have some indicators that show your business is healthy and growing for potential investors, employees and other partners.

Investors and lenders will not only want to review your financial reporting, they'll want to see how your company is performing based on key metrics such as Monthly Recurring Revenue, Customer Churn, and Customer Acquisition Cost. They use this data to see if your company is a good investment.

This guide explains the eight most commonly used SaaS metrics and how to track each one. Together, these metrics are important because they validate your company's revenue stream, product/market fit, and most importantly, the ability to achieve profitability.

Companies find that once they start tracking key SaaS metrics, they can use the data to make strategic decisions. For example, Levi Morehouse, CEO and Founder of Ceterus, says his company uses Monthly Recurring Revenue (MRR) as their main performance indicator. The focus on MRR allows Ceterus to "develop valuable recurring solutions, sell these to the right prospects, and deliver value to customers." Ceterus provides innovative financial reporting and bookkeeping for entrepreneurs.

Morehouse attributes much of his company's recent growth and success to prioritizing recurring opportunities over non-recurring opportunities, which means frequently rejecting profitable leads that would make them larger in the short run, but would not grow MRR.

This is just one example of how SaaS companies are using metrics to make the right business decisions and accelerate their growth.



MONTHLY RECURRING REVENUE(MRR)

What is MRR?

As the name suggests, MRR measures the monthly amount of total revenue that's subscription-based or recurring in nature and highly likely to continue into the future. This number excludes all one-time, non-recurring payments, such as implementation or professional service fees, hardware, and discounts.

On an annualized basis, this metric is known as Annual Recurring Revenue (ARR).

1. DEMONSTRATING REVENUE POTENTIAL

Some entrepreneurs think that what matters most is a disruptive product with a big potential market and that investors don't care much about revenue streams. While it's true that many investors look at future potential, they also care about your current performance. In fact, your current revenues are a good predictor of your future revenue potential.

Unlike one-time deals or one-off services rendered to clients, recurring revenue, such as revenue derived from subscriptions, are especially interesting to investors and lenders because they can point to sticky future income streams and are a baseline for future revenue growth.

Why MRR is Important to Entrepreneurs

There's a reason MRR is one of the biggest buzzwords in the SaaS startup world — and why it's tracked so closely. While growth in bookings is the revenue performance standard for traditional industry, using bookings to measure growth in SaaS businesses is misleading and easily manipulated. This is because subscription terms can vary wildly — from month-to-month contracts to multi-year contracts — and once you factor in upgrades, downgrades, and renewals over a contract term, it becomes pretty difficult to understand the true performance of a company using just bookings. What MRR does is normalize that recurring revenue into one time period, providing an accurate benchmark for your business momentum.

Successful SaaS companies track their MRR to measure their growth and momentum, as well as for use in financial forecasting and planning.

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As a key indicator for growth, measuring your MRR on a month-over-month basis is critical for understanding whether you're gaining traction or starting to stall.

For financial planning purposes, MRR is particularly helpful since it's relatively stable and predictable. Once you have a history of tracking your MRR, you can use it to model out estimates of where you'll be in the coming months and can plan your business accordingly. However, remember that MRR does not represent your actual cash flow. If you're receiving all of your money upfront, you'll still be incurring costs to service that contract over the rest of its term, without receiving any additional cash inflow.

HOW TO CALCULATE MRR

To calculate your MRR, start by taking all of your current customers and align them with their monthly subscription values. If you have customers that are on multi-month subscriptions, simply take those contract values and divide by the number of months in the subscription period. Lastly, add up all of the subscription values to determine your current MRR.

$$\text{MRR} = (\text{Average monthly subscription value per customer}) \times (\text{Number of customers})$$

MRR EXAMPLE CALCULATION

SaaS Co., an online social networking platform for SaaS entrepreneurs, has 2,000 customers with half on its basic plan priced at \$10/month and the other half on its premium plan at \$180/year that pays all upfront. To calculate its MRR, SaaS Co would take the 1,000 customers on the monthly plan and add it to the 1,000 customers on the annual plan (dividing the cost of the annual plan by 12):

$$(1,000 \times \$10) + (1,000 \times \$180/12) = \$25,000$$

Next month, if they added 500 customers with the same 50/50 split and lost no customers, the MRR would be \$31,250:

$$\$25,000 + (250 \times \$10) + (250 \times \$180/12)$$

The company's total revenue for that month may have been significantly different if it has any non-recurring payments, such as one-time installation fees for new customers or additional charges on top of the monthly contract value for usage or data overages. That's because MRR is not trying to measure cash flow or receipts, but how quickly and efficiently you're growing your top line. In this case at 25% month over month.

All the data you need to calculate your MRR should have been tracked in your accounting software. To calculate your MRR, you need to make sure you track your recurring and non-recurring revenue separately.

WHY MRR MATTERS TO INVESTORS & LENDERS

	EQUITY INVESTORS (VCS AND ANGELS)	TRADITIONAL LENDERS	LIGHTER CAPITAL
Startup is gaining traction	<p>MRR allows insight into the core growth of the business.</p> <p>MRR must grow by at least 100% per year.</p>		<p>MRR allows insight into the core growth of the business.</p>
Downside protection		<p>Consistent recurring revenue means increased likelihood of making payments than when revenue is lumpy.</p>	<p>Revenue is tied directly to our funding model as our loans are repaid by taking a percentage of revenue every month.</p>
Pricing mechanism			<p>Understanding the core baseline and growth in the core business enables us to more accurately price the loan (which means better pricing for the borrower!)</p>
Flexibility			<p>As MRR grows, Lighter Capital can continue to provide additional financings in line with growth</p>



COMMITTED MRR (CMRR)

What is CMRR?

CMRR looks at current MRR, as defined as (New Business + Expansion – Contraction – Churn), then adds in signed contracts going into production and subtracts out revenue that's likely to churn within that period.

Why CMRR is Important to Entrepreneurs

Unlike MRR, which only yields insight into the current run rate of a company, CMRR incorporates potential future changes, providing a forecast for the company's performance, based on what you know about your customers today.

Knowing your CMRR and how it's trending over time can enable you to more accurately forecast revenues and provides a better picture of the financial standing of the company.

The terms included in the definition to the left are defined as:

New Business MRR – MRR associated with leads that convert to paid customers in a given time period.

Expansion MRR – Any increases in MRR from existing customers in a given time period. These could be the result of customers adding additional subscriptions, upgrading, etc.

Contraction MRR – Any decreases in MRR from existing customers in a given time period. These could be the result of downgrading to a lower plan, adding or increasing a discount, etc.

MRR Churn – MRR from customers who cancel or fail to renew their subscription in a given period. (We'll discuss MRR Churn in more detail in the next section.)

MRR VS CMRR CALCULATIONS

	DETAILED MRR	CUSTOMERS	CMRR	CUSTOMERS	NOTES
End of Q1	\$750k	100	\$750k	100	
New Business					
	\$50k	1	\$50k	1	New Customer
	\$40k	1	\$50k	1	New Customer
			<i>\$50k</i>	<i>1</i>	<i>Contract Signed, Not Yet Billed</i>
			<i>\$40k</i>	<i>1</i>	<i>Contract Signed, Not Yet Billed</i>
Subtotal	\$90k	2	\$180k	4	
Churned					
	\$100k	-1	\$100k	-1	Lost to Competitor
	\$20k	-1	\$20k	-1	No Longer Wants Service
	\$10k	-1	\$10k	-1	Lost to Competitor
Subtotal	\$130k	-3	\$130k	-3	
Contraction					
	\$5k		\$5k		Discount on Renewal
	\$5k		\$5k		Reducing Users
Subtotal	\$10k		\$10k		
Expected Churn					
			<i>\$30k</i>	<i>-1</i>	<i>Not Returning Calls for Renewal</i>
			<i>\$10k</i>	<i>-1</i>	<i>Not Returning Calls for Renewal</i>
Subtotal	\$0	0	\$40k	-2	
Expansion					
	\$50k		\$50k		Increasing Users
	\$20k		\$20k		Adding Recurring Service Package
Subtotal	\$70k		\$70k		
End of Q2	\$770k	99	\$820k	99	

As you can see, taking into account signed contracts that are going into production and expected churn shows a different picture than just MRR. In this example, CMRR has a more positive outlook than MRR. However, there will be cases where CMRR can show a less favorable outlook, especially if expected churn is much higher than new contracts entering production.

HOW TO CALCULATE CMRR

Here's a simple formula you can use for determining CMRR:

$$\text{CMRR} = \text{MRR} + \text{Signed Contracts} - \text{Expected Churn}$$

As with any SaaS metric, there is no one industry definition for measurement. As you begin to track this metric, be sure to document how you're calculating this number — and remain consistent over time. Having thorough documentation will make it easier when you have to share this metric with potential investors and lenders.

Your MRR data are tracked in your accounting software, but the information on signed contracts and expected churn likely lives in your CRM. You may need to create a spreadsheet pulling from both sources to connect the two types of data, or invest in third-party software.

WHY CMRR MATTERS TO INVESTORS AND LENDERS

	EQUITY INVESTORS (VCS AND ANGELS)	TRADITIONAL LENDERS	LIGHTER CAPITAL
Startup is gaining traction	CMRR allows for a forecast of the likely revenues of the business.		CMRR allows for a forecast of the likely revenues of the business.
Pricing mechanism		The amount of revolving credit extended to SaaS companies is often based on a variation of CMRR.	
Downside protection		Using CMRR allows the credit line to grow or shrink based on the performance of the company, ensuring that the lender is not taking an outsized risk.	Understanding the core baseline, including signed contracts, helps us to more accurately price the loan (which means better pricing for the borrower).



AVERAGE REVENUE PER CUSTOMER (ARPC)

What is ARPC?

As the name suggests, ARPC is the average revenue generated from each customer per month (or per year). Sometimes the metric can be further broken down by customer segment or product type, such as the ARPC for enterprise-level customers, or the ARPC for Product A.

ARPC may vary by product line

SaaS Co. offers a mix of products and services with the following ARPCs:

Product/Service	ARPC
Product A	\$50/mo
Product B	\$200/mo
Service	\$150 OTF

Product B is definitely the cash cow in terms of revenue generation. Assuming products A and B have similar expenses, the company should focus on growing the customer base of Product B.

In addition, knowing the ARPC of their different products and services helps SaaS businesses identify upsell opportunities. Expanding on the previous example, we added a pricing column for the different products and services.

Product/Service	ARPC	Pricing
Product A	\$50/mo	\$20 to \$70 /mo
Product B	\$200/mo	\$150 to \$500 /mo
Service	\$150 OTF	\$150 OTF

In addition, knowing the ARPC of their different products and services helps SaaS businesses identify upsell opportunities.

While Product A has an upsell opportunity of \$20/customer/month (from \$50 to \$70), Product B has an upsell opportunity of \$300! This means the company should be paying a lot of attention to upsell opportunities for customers of Product B.

HOW TO CALCULATE ARPC

Calculating the ARPC is pretty straightforward and is done as follows:

$$\text{ARPC} = \text{Total Revenue} / \text{Customer Count}$$

Note that Total Revenue could be based on customer segments or product types. Customer Count needs to match the breakdown of Total Revenue (i.e. Large Clients ARPC = Total Revenue from Large Clients / Number of Large Clients, Product B ARPC = Total Revenue from Product B / number of Product B customers, etc.)

A good business practice is to monitor the change in the ARPC over time. To do this, set a certain time period for calculating changes in ARPC. For example, you could look at the ARPC of Product A in the last 6 months vs. ARPC of Product A in the last 12 months. This can help SaaS businesses to see how the revenue generated from Product A evolved over time.

Alternatively, the time period could also be set to certain events (such as shipment of a major upgrade of Product A, or completion of a major marketing campaign) to see how your customers react.

You can get the ARPC of your products and services from your accounting software or from third-party software.

WHY ARPC MATTERS TO INVESTORS AND LENDERS

EQUITY INVESTORS (VCS AND ANGELS)

**Startup is
gaining traction**

ARPC data show investors whether you are betting on the right products to generate increasing revenues.

TRADITIONAL LENDERS

LIGHTER CAPITAL

ARPC provides a guideline for how much upsell you may be able to do going forward, potentially increasing your revenues.

**Downside
Protection**

Understanding the value of individual offerings can allow you to focus on the most profitable products in tough economic times.



CUSTOMER CHURN

What is Customer Churn?

Customer Churn is the percentage of customers that cancel their subscriptions in a given time period.

2. GETTING TO PRODUCT-MARKET FIT

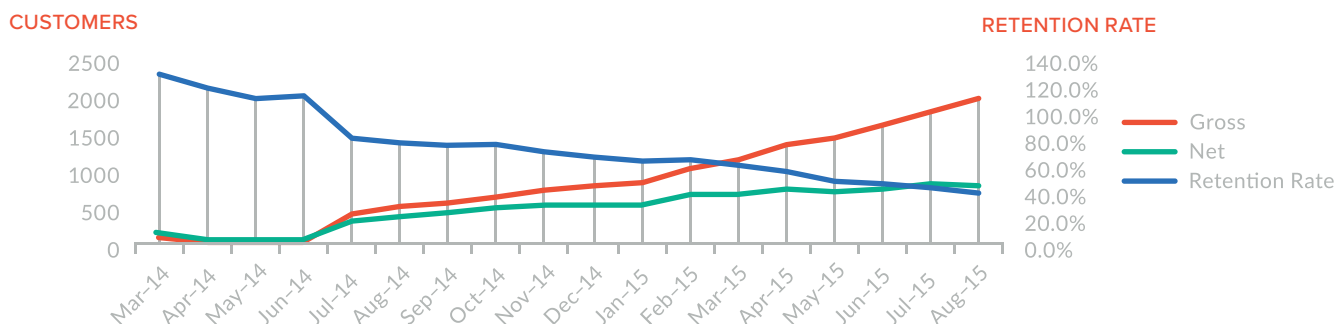
SaaS businesses rely heavily on gaining and retaining customers to grow their recurring revenue stream. There are two commonly-used SaaS metrics that indicate how well you're doing in this respect: Your customer churn rate and your MRR churn. These metrics can help you and your potential investors determine if your offering is well-received by your customer base and may help highlight some masked performance indicators. Having a well-received product is the first step to a strong and profitable company.

Why Customer Churn is important to entrepreneurs

Customer Churn offers important insights into how well you're meeting your customers' needs. In the early stages, when you're first reaching out to your potential customer base, your revenues and total number of customers can be growing while you are still hemorrhaging a large percent of existing customers every month. To tell if there's an underlying problem with customer satisfaction, you need to step away from overall revenue and total number of customers and look at the Customer Churn.

Customer Churn offers important insights into how well you're meeting your customers' needs.

If founders are only focused on overall growth and not on Customer Churn, they might believe everything is moving in the right direction when in reality there is a severe underlying problem that's causing a large portion of their customers to quit using their service or product. If new customer sign-ups were to drop off, the company's revenue stream would rapidly decline.



Above is a chart showing an example of how total customers count can be deceptive. The net number of customers isn't as healthy as the gross number of customers, and the trend line for the retention rate isn't at all encouraging. It's unlikely that the company will continue to see even modest growth in its net customer base, because the Customer Churn is too high and increasing.

HOW TO CALCULATE CUSTOMER CHURN

The basic formula for the customer churn is as follows:

$$\text{Customer Churn} = \frac{\text{Number of existing customers who left during a given period}}{\text{Total customers at the start of that period.}}$$

Usually, Customer Churn is measured on a monthly, quarterly or annual basis.

Mathematically, customer churn is the inverse of customer retention, as we noticed in the chart above.

It's worth noting that this ratio doesn't account for the gross customer accounts at the end of the period or the value you're getting from each of the lost customers.

Ideally, a company's customer churn rate would be well under 10%, but this figure can vary depending on industry competition, end customer type, and how mature your product or service is. For companies serving primarily SMBs, the customer churn rate is not as relevant, as small businesses frequently go out of business.

It's inevitable for some customers to leave now and again, but it's important to make sure you're looking at the trends that reveal sustainability. If your business has a high customer churn rate, it's important to understand what the underlying drivers of the fleeing customer base are—and to take measures to stem the flow as quickly as possible.

CUSTOMER CHURN EXAMPLE CALCULATION

SaaS Co. had 2,000 customers at the beginning of the month. During the month, 480 customers leave. For that month, SaaS Co. had a monthly customer churn rate of 24%

$$480 / 2,000 = 0.24$$

Cohort Analysis

A great way to understand Customer Churn in more detail is to do a cohort analysis, which allows you to analyze Customer Churn over time. This may allow you to see trends. For example, customers that have been with your company for more than six months may tend to churn at a lower rate than those that have been with you for one month.

Discovering such a trend can be particularly important for B2C businesses or younger businesses that are seeing high churn, as you can show that the longer customers stay with you, the more likely they are to remain customers for the long term. This tells you that perhaps you need to focus on improving the initial experience, because if you can get customers to adopt your product, they're going to stick around. This idea

plays right into the Lifetime Value (LTV) of the customer, which we'll talk about later in this paper.

Your CRM software can give you insights into your Customer Churn Rate. You can also determine this rate by looking in your accounting software for revenue streams from customers that go to zero in a given month.

WHY CUSTOMER CHURN MATTERS TO INVESTORS AND LENDERS

	EQUITY INVESTORS (VCS AND ANGELS)	TRADITIONAL LENDERS	LIGHTER CAPITAL
Approaching product/market fit	<p>Want to see if people like your product and how close you are to product/market fit.</p> <p>Will consider customer churn rate for different products to see if you are targeting the right customers.</p>	<p>Included in MRR line calculations.</p>	<p>Will consider customer churn for different products to see if you are targeting the right customers.</p>
Success/failure	<p>In general, enterprises that have a higher churn rate are more likely to go out of business than companies with a lower churn rate.</p>	<p>The amount of revolving credit extended to SaaS companies is often based on a variation of CMRR.</p>	<p>Evaluate the long-term prospects of the business: Do you have a low Customer Churn that positions you well for growth? If not, does it affect the viability of your company?</p>
Downside protection		<p>What will happen if you get no new sales? At what point will revenues approach zero with the current customer churn?</p>	<p>Look at Cohort Analysis to understand what the life cycle of the customer is.</p>



MRR CHURN

What is MRR Churn?

MRR Churn is the monthly revenue lost from canceled contracts during that month, and the MRR Churn Rate is the MRR Churn compared to the MRR at the start of the month.

A more accurate picture of MRR Churn can be calculated by including the revenue lost through contract contraction, as well as the MRR gained through contract expansion and reactivation.

MRR CHURN

Now let's talk about that other indicator of product/market fit, MRR churn. This metric is related to your customer churn, but can provide additional insights into your business.

Why MRR Churn is important to entrepreneurs

Understanding MRR Churn can help you determine the magnitude of the impact of lost customers on your revenue. It can also help you understand if those losses are manageable, especially when you compare it to the MRR associated with new customers you are bringing on each period. As you move forward and your business begins to grow, it can even help you forecast future revenue performance.

Understanding MRR Churn can help you determine the magnitude of the impact of lost customers on your revenue.

Following your MRR Churn closely can also serve as a sort of early-warning system for your SaaS business. That's because, initially, your MRR can be growing at a good clip while your MRR Churn is quite high. But over time, if you're not delivering a product that customers want, eventually this failure to achieve product market fit will catch up with you. By tracking your MRR Churn early on, you can identify problems that may not show up right away if you're just tracking MRR, giving you time to pivot or make the appropriate adjustments before your company goes bust.

HOW TO CALCULATE MRR CHURN

First, let's look at the different scenarios that are possible with a customer:

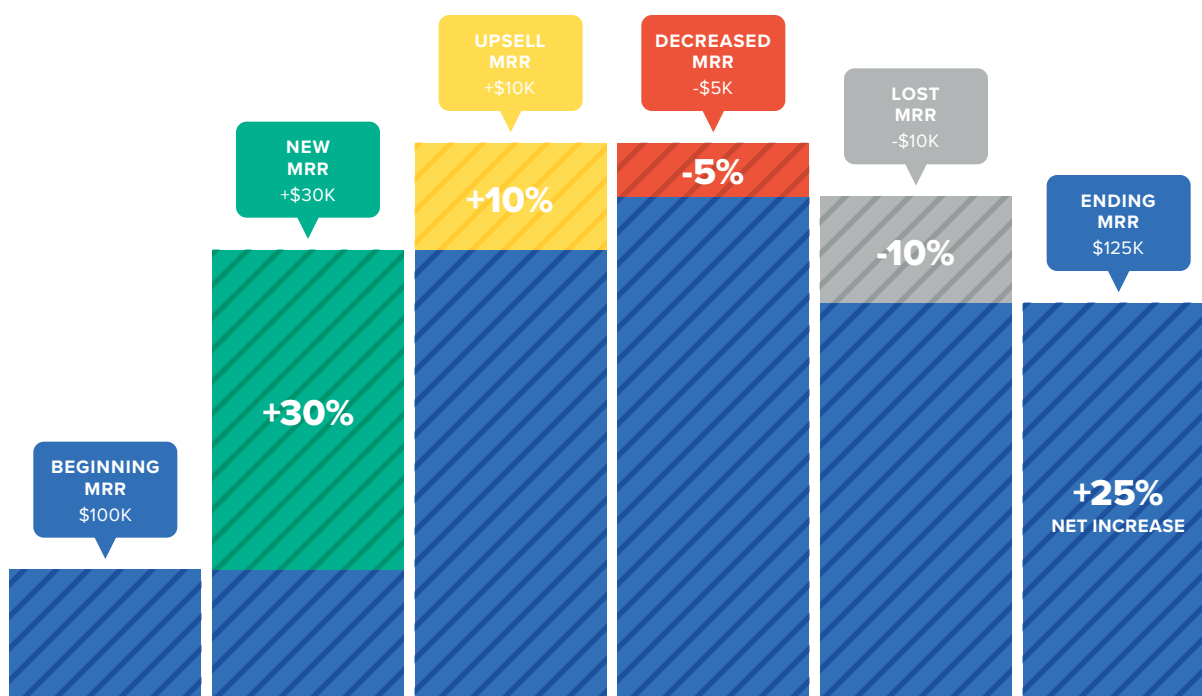
- **Do nothing, and leave the purchase the same as before (MRR)**
- **Buy the product for the first time – New Customer (New MRR)**
- **Increase the purchase – Upgrades (MRR Upsell)**
- **Decrease the purchase – Downgrades (MRR Decrease)**
- **Stop buying all together – Lost Customer (MRR Lost)**

Now that we have these five things identified, let's look at how they all work together to get to your MRR revenue levels. MRR analysis is something that is done over time. This means we are either looking at month-over-month, quarter-over-quarter, or year-over-year. In this example we are going to look at month-over-month.

In the beginning of January 2016, our sample company had 100 customers with a total purchase volume equal to \$100,000. During the month of January, 10 new customers purchased your product at \$3,000 per month (\$30,000 in new MRR). Four of your current customers increased their monthly purchase amount by \$2,500 each (a total upgrade of \$10,000). Two customers decreased their monthly purchase amounts by \$2,500 each (a total downgrade of \$5,000). Three customers went out of business and therefore stopped buying your product altogether. Their purchase was typically \$2,500 per month, resulting in \$5,000 in lost MRR. There were no other changes with the rest of the customers.

So, we end up with the following:

- **Beginning MRR: \$100k**
- **New Customers (10): +\$30k MRR**
- **Upsell MRR (4): +10k**
- **Decrease MRR (2): -\$5k**
- **MRR Lost (4): -\$10k**
- **Ending MRR: \$125k**



TRACKING YOUR MRR

Now let's look at the percentage change for each respective area.

- **New MRR Percentage:** $\$30,000 / \$100,000 = +30\%$
- **Upsell MRR Percentage:** $\$10,000 / \$100,000 = +10\%$
- **Decrease MRR Percentage:** $\$5,000 / \$100,000 = -5\%$
- **Lost MRR Percentage:** $\$10,000 / \$100,000 = -10\%$

By combining all of the above numbers, we are able to look at the Net MRR Increase/Decrease. This can be done by summing all of the above percentages, or working from the original values.

- **Net MRR Increase/Decrease:** $+30\% + 10\% - 5\% - 10\% = +25\%$
- **Net MRR Increase/Decrease:** $(\$30,000 + \$10,000 - \$5,000 - \$10,000) / \$100,000 = +25\%$

Like with MRR, the data you need to calculate MRR Churn should be recorded in your accounting software.

WHY MRR CHURN MATTERS TO INVESTORS AND LENDERS

	EQUITY INVESTORS (VCS AND ANGELS)	TRADITIONAL LENDERS	LIGHTER CAPITAL
Approaching product/market fit	<p>Want to see if people like your product and how close you are to product/market fit.</p> <p>Want to see that the products that are most popular also contribute significantly to your bottom line.</p>	<p>Included in MRR line calculations.</p>	<p>Will consider MRR churn rate for different products to see if you are targeting the most profitable markets.</p>
Startup is gaining traction	<p>An indicator of your growth trend and traction, and a predictor of future revenue.</p> <p>Want to see you adding more users with existing customers than you are losing.</p>		<p>An indicator of your growth trend and traction, and a predictor of future revenue.</p> <p>Want to see you adding more users with existing customers than you are losing.</p> <p>Are you hitting your stride with existing customers? Are they increasing your MRR by adding users?</p>
Downside protection		<p>One of the metrics that helps project the minimum revenue lenders can expect to receive over the next year(s).</p>	<p>One of the metrics that helps project the minimum revenue we can expect to receive over the next year(s).</p>



CUSTOMER ACQUISITION COST (CAC) RATIO

What is CAC Ratio?

The CAC Ratio is a comparison of two factors: the total sales and marketing expenses associated with gaining a new customer, and the gross profit associated with those new customers during a given period of time.

3. HIGHLIGHTING A PATH TO PROFITABILITY

Profitability is not the be all and end all for startups. It might be as important—or even more important—to grow your customer base and grab market share first, while you’re still disrupting the existing market. Still, investors will at least want to see a path to profitability, and two metrics will help you chart that path: Customer Acquisition Cost (CAC) Ratio and Customer Lifetime Value (LTV).

Why the CAC Ratio is important to entrepreneurs

Depending on which number you use as the numerator and which you use as the denominator, the CAC Ratio will either tell you the percentage of your expenses that will be recovered during a particular time period (gross profit for given time period/expenses) or the time it will take to recover the expense associated with acquiring the new customers in the first place (expenses/ gross profit for a given time period).

As such, the CAC Ratio is an important tool for understanding how long it will take to recoup your sales and marketing investment. In fact, that’s why the calculation uses gross profit rather than total revenue, because what really matters is how much you actually earned from that customer after factoring in the cost of goods sold.

Gross Margin vs. Profit Margins

Not all SaaS companies do a good job calculating gross profits, which leads to overinflating your CAC, so it’s worth pointing out the difference with profit margins.

Gross margin is gross profit (revenues minus cost of goods sold) divided by revenue. Gross profit doesn’t take into account operating expenses.

Here’s a simplified example for a fictitious software company making apps:

Annual revenues:	\$500,000
Cost of goods sold:	\$100,000
Operating expenses:	\$300,000

The gross profit for this tech company is \$400,000 (\$500K-\$100K), which makes their gross margin 80% (400K/500K).

Software companies often have a high gross margin because the costs of goods sold is relatively minimal and limited to unavoidable expenses such as server costs and hosting costs.

However, the app company has a lot of operating expenses: They need to rent office space, pay salaries to developers and sales people, and budget money for marketing and advertising. The operating expenses of

tech companies are usually a lot higher than the cost of goods sold, but operating expenses are variable and can be reduced to control burn.

Once operating expenses are also deducted, the net income for the startup is \$100,000 (\$500K-\$100K-\$300K), which makes the profit margin 20% (100K/500K).

CAC RATIO EXAMPLE CALCULATION

Last month, SaaS Co. spent \$1,000 on pay-per-click advertising, \$3,000 for print advertisements, and \$6,000 for one Sales Representative to reach out to the leads generated from the new marketing campaign. SaaS Co. generated 50 new customers, all of which purchased monthly subscriptions for \$10/month. SaaS Co.'s product is fully developed and only costs \$50/month for unlimited hosting.

Here's a breakdown of their key financials:

Revenue	Aug. 2015
Monthly Subscription	\$500
Total Revenue	\$500
COGS: Hosting	\$50
Gross Margin	\$450

Sales and Marketing

Pay Per Click	\$1,000
Print Ads	\$3,000
Sales Rep Salary	\$6,000
Total Sales and Marketing	\$10,000

SaaS Co. has a gross profit of \$450/month, or \$5,400 when annualized, and sales and marketing expenses were \$10,000 for the month. Based on these numbers, we can calculate:

CAC Ratio

Gross Margin (Annualized)	\$5,400
Total Sales and Marketing	\$10,000
CAC Ratio	54%

This shows that the new customers acquired last month will recover 54% of the month's Sales and Marketing efforts in one year. It can also be useful to flip the numerator and denominator to see a different result. Doing so yields the following:

CAC Ratio

Gross Profit (Annualized)	\$5,400
Total Sales and Marketing	\$10,000
CAC Ratio	1.85

This inverted CAC Ratio tells us how many years—in this case, 1.85 years—it will take SaaS Co. to recover its initial investment in sales and marketing for August.

At Lighter Capital, we use the inverted ratio most often because it gives us a faster way to review the amount of time it will take to recover a company's investment in sales and marketing.

Note: We assumed that all new customers acquired last month were a direct result of sales and marketing efforts in the same month. However, most businesses have a lag time between the sales and marketing efforts and actual sales. Establishing a direct correspondence between sales and marketing efforts can be complicated, though, and the method used above can be a helpful proxy.

Where to get the data to calculate your CAC Ratio

Unlike the other metrics, calculating your CAC Ratio is sometimes done manually, combining disparate pieces of data from both your CRM and accounting software. If your organization has a CFO or employees business analysts, they'd perform this type of analysis. If you're not yet tracking this metric, you should jump on the bandwagon—it's a commonly used data point, especially within the tech space.

HOW TO CALCULATE YOUR CAC RATIO

Here is the formula for calculating your CAC Ratio:

Annualized Gross Profit for period Q / Sales and Marketing Expenses for period Q

WHY CAC RATIO MATTERS TO INVESTORS AND LENDERS

	EQUITY INVESTORS (VCS AND ANGELS)	TRADITIONAL LENDERS	LIGHTER CAPITAL
Path to profitability	How quickly will new customers increase your profitability?		How quickly will new customers increase your profitability?
Growth potential	How quickly can you grow after an injection of capital considering the cost of acquiring customers?		How quickly can you grow after an injection of capital considering the cost of acquiring customers (CAC)? How quickly will those new customers increase your profitability (CAC Ratio)?
Downside protection		Want to feel comfortable with how much you are spending on acquiring customers (CAC).	Revenue is tied directly to our funding model as our loans are repaid by taking a percentage of revenue every month.



CUSTOMER LIFETIME VALUE (LTV)

What is LTV?

Customer Lifetime Value (LTV) is the total amount of revenue, on average, you expect to earn per customer.

Put another way, LTV is an estimate of the total subscription value of an average customer. As the name implies, LTV measures the value over the entire lifetime of a customer.

Why LTV is important to entrepreneurs

Knowing how much revenue you can expect to generate for an average customer is, of course, important. When viewed in isolation, however, LTV doesn't give you the whole picture. It's much more valuable to view your LTV relative to the average cost to acquire a new customer—aka Customer Acquisition Cost (CAC), as we will discuss a bit further down in this section.

LTV EXAMPLE CALCULATION

SaaS Co. offers two different pricing options: Basic (\$10/month) and Premium (\$15/month). SaaS Co. has 1,000 Basic and 1,000 Premium customers. Average customer lifetime varies by pricing plan.

Average Customer Lifetime

Basic: 12 months
Premium: 24 months

With these data, we can calculate the LTV of the company's average customer:

$$\text{LTV} = [(\$10 \times 1,000 \times 12) + (\$15 \times 1,000 \times 24)] / 2,000 = \$240$$

This means that, on average, SaaS Co. can expect to generate \$240 in revenue per customer.

HOW TO CALCULATE LTV

One way to estimate LTV is with this formula:

$$\text{LTV} = \text{Average Revenue Per Account (ARPC)} \times \text{Average Customer Lifetime}$$

Is there a particular value that SaaS companies should be targeting? There is no “right” answer, because it’s not your standalone LTV that really matters but your LTV relative to your CAC.

At a minimum, you want your LTV to be greater than your CAC. If you are spending more to acquire the average customer than you gain from them, your business is destined to fail. This may seem obvious, but especially during boom cycles seemingly promising startups can be hyper-focused on growing their customer base fast without considering the risks of spending too much on their customer acquisition efforts.

As a general rule of thumb, a good goal to shoot for is an LTV that’s 3x or more than your CAC. This provides a buffer for unexpected variations—such as higher acquisition costs or a shorter customer lifetime—while still generating an attractive margin.

You can get the lifetime value of your customers from your accounting software. As we mentioned above, you may also want to look into third-party software to track this metric.

WHY LTV MATTERS TO INVESTORS AND LENDERS

	EQUITY INVESTORS (VCS AND ANGELS)	TRADITIONAL LENDERS	LIGHTER CAPITAL
Path to profitability	Want to know the value of newly acquired customers over the long run.		Want to know the value of newly acquired customers over the long run.
Pricing mechanism			CAC ratio and LTV determine how long it will take you to repay the loan. LTV also determines if you can take on additional loans as you add customers and increase your revenues.



LTV/CAC RATIO

What is LTV/CAC Ratio?

The LTV/CAC Ratio is the total average value you expect to receive from a new customer compared to the average cost to acquire a new customer.

LTV

Customer Lifetime Value

CAC

Customer Acquisition Cost

Why LTV/CAC Ratio is Important to Entrepreneurs

The LTV/CAC Ratio summarizes a plethora of information—including anticipated average lifetime revenue per customer, customer churn, and sales and marketing costs—into a single number that can be easily understood and used to evaluate the future prospects of your business.

Ultimately, what you're trying to answer is: On average, do we earn more revenue per customer than the cost to acquire new customers?

If the answer is “yes”, you might have a chance of being a successful company. If the answer is “no”, you probably won't be in business for long. The exception is if you're in the early stages of your SaaS startup. In this case, your LTV is likely to be quite low relative to your CAC. This isn't necessarily an issue—as long as you expect your LTV to trend up over time relative to your CAC.

For example, a high LTV/CAC Ratio means you have the potential to grow faster—and need less capital to do so! Companies with higher LTV/CAC Ratios typically have higher valuations and an easier time securing funding from investors.

A lower LTV/CAC Ratio means your company is not as efficient at acquiring high value customers, and will likely need more capital to fuel revenue growth. The need for more capital and the slower growth rate means lower valuations from investors.

... a general rule of thumb is that you should aim for a LTV/CAC Ratio of at least 3:1, especially if seeking equity investors.

So, what's a high or low LTV/CAC Ratio? Average LTV/CAC Ratios vary across industries and business models, but as mentioned above, a general rule of thumb is that you should aim for a LTV/CAC Ratio of at least 3:1, especially if seeking equity investors. This provides the necessary profit to invest in continued growth, and allows for a cushion should LTV decrease or CAC increase.

However, this is not to say that a business cannot thrive with a LTV/CAC Ratio of less than 3. If you do not desire or need a large exit, and if you're not looking to raise equity, having a high LTV/CAC Ratio is less important. Debt investors, for example, are more interested in seeing a stable or slightly expanding LTV/CAC Ratio than in an LTV/CAC Ratio that's greater than or equal to 3.

HOW TO CALCULATE LTV/CAC RATIO

This is a really simple calculation:

$$\text{LTV} / \text{CAC}$$

We already showed you how to calculate LTV:

$$\text{LTV} = \text{Average Revenue Per Account (ARPC)} \times \text{Average Customer Lifetime}$$

And CAC is simply:

$$\text{Total Sales and Marketing expense} / \# \text{ of new customers}$$

LTV/CAC RATIO EXAMPLE CALCULATION

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This means that, on average, SaaS Co. can expect to generate \$240 in revenue per customer.

Where to get the data to calculate LTV/CAC Ratio

You'll need both CRM data and a well-organized accounting system to figure out your LTV/CAC Ratio.

WHY LTV/CAC RATIO MATTERS TO INVESTORS AND LENDERS

	EQUITY INVESTORS (VCS AND ANGELS)	TRADITIONAL LENDERS	LIGHTER CAPITAL
Path to profitability	Want to know the revenue potential generated by new customers significantly outpaces the cost of acquiring them.		Want to know the revenue potential generated by new customers significantly outpaces the cost of acquiring them.
Downside protection		Want to make sure you're not spending more on getting new customers than they're worth to your bottom line.	Want to make sure you're not spending more on getting new customers than they're worth to your bottom line.

SUMMARY

Tracking some or all of the eight metrics covered in this guide will help you gain new insights about your business, and help you make better decisions. Having a clear understanding of how your company is performing against key SaaS metrics demonstrates that you know your business well, which is critical when you get in front of investors.

Two key things to know about sharing your company's data with potential investors or lenders:

- 1** Make sure your metrics go beyond just a “snapshot.” You'll want to show how your key indicators have evolved over time, and how your company compares to industry peers and competitors, if the data is available.
- 2** Make sure your data is clean and easily consumable—a link to an online dashboard is great, but a simple PDF or similar will work to share metrics reports. If you're prepping financial information, again, you need to make sure your information is clean and easy to understand. Messy or impossible to follow financials are not only hard to evaluate, they may cast doubt on the reliability of the information and your company's credibility. We recommend using an accounting program such as QuickBooks, which integrates with many third-party tools and systems, including Lighter Capital's application process.