How Public SaaS Companies Report

Dollar-Based Net Retention Rate

Research study by

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NET RETENTION METRICS

COMPARABILITY IN REPORTING

One of the primary goals of net retention metrics is to enable investors to perform comparisons between different SaaS companies. Specifically, net retention metrics help investors understand which companies are able to expand their customer base over time by upselling more existing services and cross-selling new services.

Healthy SaaS businesses will be able to expand revenue from current accounts at a faster rate than they are losing revenue from churn, thus achieving a net retention metric of greater than 100%.

However, retention metrics lose their usefulness for comparability, when companies use different formulas and methodologies to calculate the numbers.

Most of the popular SaaS metrics (ARR, Rule of 40, CAC) have multiple different variations in use. ARR can be calculated using contracted MRR x 12 or by annualizing GAAP revenue. Rule of 40 can be calculated by summing ARR + FCF or GAAP revenue + EBITDA.

However, net retention metrics have far more permutations in use than any of the other SaaS KPIs. In 2019, Keybank published 110 different approaches that were in use by public SaaS companies to calculate retention metrics, which highlighted the divergence in approaches. (https://www.key.com/businesses-institutions/industry-expertise/saas-resources.html)

WHAT IT MEASURES

- SaaS company's ability to grow and retain existing customers
- Measures expansion, contraction, and churn
- Does not include new business

HOW ITS CALCULATED

- Compares recurring revenue for a cohort of customers between a base period and the current period

GOALS OF RESEARCH STUDY

In this research study, we sought to further quantify the problem by conducting a deeper analysis of the formulas used and policy elections made by over 170 different SaaS companies over the past 10 years. In the report we categorized the different aspects of the formulas:

- Mathematical equation (e.g. (base + expansion – churn)/base)
- Recurring revenue metric (e.g. ARR, billings)
- Comparative period (e.g. YOY, corresponding quarter)
- Averaging techniques (e.g. weighted TTM average)

We've also quantified the number of companies using each different approach. For example, we found that 47% of companies use ARR/MRR and 42% use GAAP revenues to calculate retention.

We also reviewed the qualitative disclosures from all of the SaaS companies to understand the types of pricing models (e.g. usage-based), product lines (e.g. professional services,), contract types (e.g. monthly plans), and customer segments (e.g. SMB) that are most commonly exclude from retention calculations.

We explored how public SaaS companies report on mergers and acquisitions, fluctuating foreign exchange rates, and changes to retention formulas to investors.

COMPARABILITY CHALLENGES

SaaS companies use different approaches for retention metrics including:

- Mathematical formulas
- Recurring revenue metrics
- Comparative period
- Averaging techniques
- Product lines
- Contract types
- Customer segments
- Currency conversions

SUMMARY OF FINDINGS

REPORTING

Net retention metrics are one of the most widely reported SaaS KPI. More public companies report retention as a “Key Business Metric” in the Management’s Discussion and Analysis section of their SEC filings than any other KPI including customer count, ARR, and backlog. Gross retention is less widely reported. Only a handful of companies report on renewal rates.

Finding	Count	Percentage	Description of Usage
Net retention reported	97 of 135	67%	Reported on a net retention metric in their investor filings. More than 95% of the companies reporting also provided a definition and the methodology used for the calculation including policy elections.
Gross retention reported	10 of 135	7%	10 companies reported on gross retention. Seven of those 10 reported on both net and gross retention metrics. 100% of the companies reporting on a gross metric also provided a definition and the methodology used for the calculation.

COMPARABILITY

Approximately one-half of the companies reporting on a net retention metric use a non-standard approach to the calculation or have policy elections limiting the scope of customers, products, or contracts included. For example, 29% of the reporting companies use an averaging technique to blend their current period results with historical results from the past 12 months. Even the terminology used to describe the metric varies widely. Over 30 different terms were used to describe the various metrics, with Dollar-Based Net Retention Rate being the most common.

Additional details are provided on the following pages.

CALCULATION METHODOLOGIES VARY

In addition to using different formulas to calculate the net retention metric, SaaS companies also vary in the numbers that they plug into the numerator and denominator of the equation. The "core" revenue metric used is most commonly GAAP revenue or ARR, but could also be billings or an ACV. The base and current period compared could be a single month, a quarter, or a full year.

Variable	Examples	Description
Formulas	• Current period/base period • (Base + Expansion – Contraction – Churn)/Base	The majority of SaaS companies use recurring revenue from the current period divided by the recurring revenue from the base period. Fewer than 10 companies used alternative formulas.
Core Metric	• GAAP revenue • ARR/MRR • ACV • Billings/Invoicing	ARR and GAAP are the most common core metrics used for retention. ACV and billings are used by fewer than 5 companies. A number of organizations defined self-defined metrics specific to their business model.
Comparative Period	• Point in time • Full year • Full quarter • Full month	About half of SaaS companies perform a point-in-time comparison of the customer revenues in the current period to the base period. The other half use a range-of-time such as two consecutive years or two corresponding quarters or months.
Averaging Method	• Arithmetic • Weighted • Dollar-weighted	Three quarters of SaaS companies do not use any type of averaging strategy. However, the remaining 25% do report on a number that is the average from the trailing four quarters or trailing twelve months.

CUSTOMER COHORT APPROACHES VARY

Many of the SaaS companies included details about certain customer segments that are either included or excluded from their retention calculations. There are a wide variety of methodologies using to slice these customer segments. Some use firmographic criteria (e.g. SMB) while others use contract type (e.g. monthly), churn reason (e.g. insolvency), or the stage in the customer lifecycle (e.g. implemented) as a boundary for inclusion or exclusion.

Variable	Include/Exclude	Description
Lifecycle Stage	• Recently booked • Not implemented • Late renewals	Some exclude customers with contracts that are booked but not yet implemented. Some include late renewals with expired contracts that are anticipated to sign a new agreement.
Firmographic Criteria	• Geographic regions • Vertical industries • Revenue bands	Some include/exclude customers within a certain revenue band or employee count such as small businesses or enterprise. A few exclude certain geographic regions (e.g. international).
Contract Types	• Annual/multi-year • Monthly/pay-as-you-go • Free-to-paid conversions	Some included only customers on annual contracts. Others include customers monthly plans and make assumptions about how to annualize revenues. None include free trial conversions.
Churn Reason	• Mergers & acquisitions • Insolvency • Product End of Life	Some exclude customers that churned due to insolvency or discontinued business operations. Many have policies about how and when customers from mergers and acquisitions are incorporated into results.

PRODUCTS AND REVENUE STREAMS INCLUDED VARY

SaaS companies also have policy elections related to the specific products and revenue streams included in their net retention metric calculations. Finance organizations may elect to include or exclude revenue tied to certain pricing models, professional services engagements, historical licensing strategies, and/or deployment models.

Variable	Include or Exclude	Description
Pricing Models	• Subscription • Usage-Based • Transaction	Subscription pricing which generates fixed, recurring fees is almost always included. Some include variable, recurring fees generated from usage-based pricing while others do not.
Professional Services	• Professional services • Customer support • Managed Services	A few include professional services revenue in retention calculations, especially if it is long term in nature. Others exclude all professional services. Many include recurring revenue from customer support.
Specific Products	• Legacy/End of Life • Non-recurring fees • Recently acquired	Some exclude legacy products, which may be generating recurring revenue, but are discontinued and have planned attrition. Some excluded selected product lines with non-recurring revenue streams such as one-time fees.
Alternative Licensing	• Perpetual Licenses • Software Maintenance • Term Licenses	Many of the companies with software maintenance fees from perpetual license include these recurring revenue streams in their retention calculations.
Alternative Deployments	• Self-managed on-premise • As-a-service cloud	Most include recurring revenues from software regardless of the deployment model. Companies with hybrid models including software that is self-managed software hosted on premise or in the cloud is often included in retention calculations.