How Public SaaS Companies Report

Annual Recurring Revenue (ARR)

Research study by

ORDWAY

October 2023

EXECUTIVE SUMMARY

SCOPE OF RESEARCH STUDY

To gain insights into how publicly traded companies report on and define ARR, Ordway conducted an analysis of financial disclosures from companies listed on US capital markets.

In total, we reviewed 136 actively listed SaaS, cloud, and fintech providers on the NYSE and NASDAQ. The analysis included US-based companies as well as foreign issuers.

We started with the BVP Nasdaq Emerging Cloud Index, which contained 68 companies at the time. We doubled the sample size by adding another 68 companies that we thought would provide us with a more diverse representation of ARR definitions in formulas. We wanted to include companies with a more diverse range of revenue streams, pricing strategies, and distribution channels, beyond the traditional "subscription" business models of the early SaaS leaders.

The scope of our analysis was limited. We did not review all the investor filings and materials available. Instead, we focused on the most recent two annual reports (e.g. 10-K or 20-F) filed in 2021-2023.

For those SaaS and cloud providers where there was no reference to ARR in the annual report, we also reviewed the most recent quarterly results announcements, quarterly earnings calls, and investor presentations.

STUDY FIRMOGRAPHICS

SaaS and Cloud Providers

- 136 Total
- 67 from BVP Nasdaq Index
- 69 selected by Ordway

Exchange Listing

- 61 NYSE
- 75 NASDAQ

Documents Reviewed

- Annual SEC filings – 10-K or 20-F (past 2 years) as well as S1 registrations (if no annual report available)
- Quarterly earnings transcripts (past quarter)
- Investor presentations (most recent)

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

PUBLIC SAAS COMPANIES USE OF ARR

ONLY 30% REPORT ARR TO INVESTORS

In the private markets ARR is king, driving everything from market valuations to executive compensation. Post IPO, ARR remains important, but is not as consistently reported on as a key metric to investors. Of the 136 public companies reviewed:

Use of ARR	Count	Percentage	Description of Usage
ARR was mentioned	82 of 136	60%	Referenced ARR (or a variant) in their investor filings. ARR is referenced in a variety of contexts including key business metrics, total addressable market, executive compensation, and credit arrangements.
ARR was defined	69 of 136	50%	Sometimes ARR is only referenced in the context of calculations of other key business metrics. For example, about 25 companies only mentioned ARR in the context of calculating Net Revenue Retention or tracking the number of accounts with greater than $100K or $1M ARR.
ARR results reported	40 of 136	29%	Companies that referenced ARR and reported it as a key business metric in the Management's Disclosure & Analysis section of their annual report. These organizations also reported annual ARR results for the past few fiscal years.

SOME USE ACV

It is also interesting to note that ACV (Annualized Contract Value) was referenced in investor communications by 17 of the 136 companies. ACV calculations typically include all revenue, not just recurring. Nonetheless, it was used in investor disclosures with a similar purpose to ARR. Of the 17 companies that referenced ACV, 9 also mentioned ARR.

ARR DEFINITIONS VARY

PUBLIC SAAS COMPANIES HAVE 11+ DIFFERENT POLICY ELECTIONS

The level of detail disclosed about ARR varied widely with some organizations sharing only a sentence and others publishing several paragraphs. However, 55 of the 68 companies that provided a definition for ARR had adopted some unique different policy or formula. For public SaaS companies ARR is rarely simple calculation of monthly price x 12. The policy elections we identified fall into 11 categories as outlined below.

Variable	Policy Elections	Description
Customer Segments	Include/exclude • Consumer • Small business • Middle market • Enterprise	Just because a customer may have a recurring revenue contract does not mean it is included in ARR calculations. Some SaaS companies purposefully excluded consumer or small business segments from ARR reporting due to the higher churn.
Contract Lengths	Include/exclude • Monthly plans • Paid trials • < 12 Month contracts	Some include monthly, pay-as-you-go plans in ARR calculations while other SaaS providers only include customers with formal contracts of 12 months in length or greater.
Reporting Start Date	Start at • Booking date • Contract effective date • Go-live date • Initial revenue recognition	Reporting does not always map to the start dates of a customer contract. Many providers delay reporting ARR from new business until it the customer is live and implemented.
Reporting End Date	End at • Notification of cancel • Contract end date • Renewal grace period end	ARR reporting does not necessarily stop when a contract expires. Some providers extend reporting of ARR past contract end-dates for anticipated late renewals.
Distribution Channels	Include/exclude • Direct sales • 3rd party channels	Some include recurring revenue from generated through third-party distribution channels while others only include ARR from direct sales efforts.

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

Variable	Policy Elections	Description
Product Lifecycle	Include/exclude • Legacy products • Beta products	Just because a product line generates recurring revenue does not mean it is included in ARR. Some SaaS providers excluded products that are considered "legacy" or approaching end-of-life.
Pricing Models	Include/exclude • Subscription pricing • Usage-based pricing • Percentage pricing	Many providers include usage-based pricing in ARR even though the revenue profile can vary month-to-month. Very few providers with percentage pricing (generated, for example, by taking a small percentage of the dollar value of financial transactions) included the associated fees in ARR.
Pricing Changes	Apply to ARR • Immediately, all customers • As customers renew	Some providers apply pricing changes to all customers' ARR once the new fees are announced. Others update ARR as each customer's contracts renew and pricing becomes effective.
Deployment Model	Include/exclude • Term license • Perpetual license • Maintenance contracts	Products do not need to be run on a cloud platform, nor do they need to be delivered "as-a-service" to be included in ARR. Recurring revenue generated from "self-managed" technology run in a private cloud or "on-premise" is often included in ARR. Maintenance fees associated with perpetual licenses are also reported as ARR.
Professional Services	Include/exclude • Managed services • Premium customer support • Other professional services	Products do not need to be technology-centric to be included in ARR. A handful of organizations included lower-margin, "people-based" services such as professional services, managed services, and premium customer support programs in ARR.
Foreign Exchange	Report ARR using • Constant currency • Adjusted rate	Some present ARR in constant currency. Others adjust FX annually or quarterly.

THREE WAYS TO CALCULATE ARR

Methods for calculating ARR vary amongst public SaaS and cloud companies. We identified three common models – each of which rely on calculating a monthly run rate first (e.g. MRR), which is then annualized.

Model 1 "Assigned" ARR	**Contracted monthly price x 12 = ARR** In the first model, MRR is "assigned" to each customer. Finance reviews the current monthly price for products with recurring revenue in the contract and then annualizes it. For example, suppose a SaaS customer had a 12-month contract with pricing of $100 per user per month for 20 users. The current MRR is $2,000 ($100 x 20), resulting in an ARR of $24,000 ($2,000 x 12).
Model 2 "Average" ARR	**TCV / months in contract x 12 = ARR** In the second model, an "average" monthly fee is annualized. The average monthly fee is calculated by dividing the Total Contract Value (TCV) by the number of contract months. For example, a 24-month contract in which the customer pays $1,000 per month for the first year and $2,000 per month for the second year along with a one-time implementation fee of $6,000. The Total Contract Value would be $42,000 ($1,000 x 12 + $2,000 x 12 + $6,000). The average monthly fee would be $1750, which results in an ARR of $21,000 ($1,750 x 12).
Model 3 "Actuals" ARR	**Last month's GAAP revenue x 12 = ARR** In the third model, a monthly run rate is computed based on the company's GAAP accounting for the prior month ("actuals"). Once the MRR or run rate is determined, it is multiplied by 12 to arrive at ARR. For example, suppose a cloud provider with usage-based pricing generated $20,505 in GAAP revenue last month. The ARR would be $246,060 ($20,505 x 12).

It is also worth noting that we have simplified the formulas in the above explanation. Within each of the three approaches, there can be several variations in how the formulas are applied.

HAVE WE OUTGROWN A ONE-SIZE-FITS-ALL MODEL FOR ARR?

As the SaaS and cloud industry has grown over the past two decades, the scope of business models has grown increasingly diverse.

Product Lines	Technology providers are not only bundling hardware and software into as-a-Service offerings they are also generating revenue from processing credit card payments, interest on small business loans, and commissions from third-party developers who sell apps in their marketplaces.
Pricing Models	No longer are SaaS applications being priced simply on a per-user, per-month basis, today's pricing is based upon consumption metrics like GB of data transferred or the number of API calls executed. Some are pricing based upon a percentage of the dollar value of gross merchandise value processed or the value of assets under management.
Contract Structures	SaaS providers prefer annual or multi-year contracts, but many offer month-to-month plans as a new customer acquisition strategy. Companies with usage-based pricing have different contract structures such as capacity agreements that include a fixed number of prepaid credits that can be redeemed for services.
Deployment Models	Most software is delivered as-a-Service in the vendor's cloud. However, a notable number of the larger providers also offer a self-managed model that the customer runs and operates themselves. There are also a meaningful number of legacy perpetual licenses still in use along with the associated maintenance contracts.

Has the SaaS and cloud industry reached the point where it is simply too diverse for a simple, one-size-fits-all model for projecting recurring revenue? It would seem a better approach, companies need to select the method that best represents their product set, pricing strategies, contract structures, and deployment models.

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

In the remainder of the report, we dive into much more detail on the formulas used and policy election options that the public SaaS and cloud companies use including specific examples of the disclosures presented to investors.

TABLE OF CONTENTS

SECTION 1: THE IMPORTANCE OF ARR

1.1 ARR DRIVES VALUATION AND ACCESS TO CREDIT

In the private markets ARR is king. Annual Recurring Revenue is the leading metric used by venture capital and growth equity firms to define the valuation of SaaS and cloud companies. Founders, CEOs, and General Partners at VC firms haggle during each funding round about whether a company should be valued at 5X, 10X, 20X or 100X ARR.

ARR is also important for SaaS and cloud providers seeking debt financing. It is one of the key metrics commercial banks and venture debt firms use in debt covenants and underwriting processes.

Innovators in the revenue financing space have converted ARR into a new type of asset class that can be bought and sold on private marketplaces. The ARR from customer contracts can be traded much like equities, fixed income, and other financial securities.

ARR's importance continues as companies transition to public markets. Equity analysts and venture capital firms compare the key metrics of SaaS and cloud companies at the time of IPO and at regular intervals following quarterly earnings reports. Many of the KPIs analyzed are based on ARR. Examples include Total ARR, ARR growth rate, ARR to FTE, ARR to net cash burn, and valuation as a multiple of ARR.

EXAMPLES OF DEBT COVENANTS TIED TO ARR/MRR

"The amount of borrowings permitted at any one time under the revolving credit facility is subject to a borrowing base based on an advance rate of 400% multiplied by annualized retention applied to monthly recurring revenue."

SEMRush

"Borrowings under the credit facility were available based on a certain ratio of the Company's MRR (defined in the agreement as the monthly value of services, software licenses, rentals and subscription revenue on a consolidated basis excluding non-recurring sales of services or other transaction revenue not in the ordinary course of business, and churn)."

Monday.com

"We must also maintain certain financial covenants: for the first year, a total annual recurring revenue leverage ratio not to exceed 0.8 to 1.0."

Expensify

ARR DRIVES EXECUTIVE COMPENSATION

Given ARR's dominance it should be no surprise that ARR is the Key Performance Indicator management teams at SaaS and cloud companies track. The CEOs at tech companies are maniacally focused on growing ARR. They are far more likely to know their current ARR than traditional metrics such as GAAP revenue or Net Income. It's not just CEOs that are focused on ARR. Variable compensation plans and sales commissions often are tied to ARR. Marketing pipeline is measured in ARR. Customer Success goals for retention, renewals, and upsells are tied to ARR.

1.2 THE CENTAUR

In recent years, the $100M ARR benchmark has become the aspiration of every founder. $100M ARR is starting to be viewed as more important than a $1B valuation in some circles, particularly as it has become more and more common to reach unicorn status in recent years.

Bessemer Venture Partners recently introduced the concept of a Centaur, which is a business with $100M in ARR. At the time BVP introduced the concept there were only 160 private cloud Centaurs, making them 7x rarer than unicorns.[6]

SaaS and cloud companies actively compete to see which one can be the fastest to achieve the $100M milestone. New startups are reaching Centaur status faster and faster each year. Wiz and Deel announced $100M ARR in less than 2 years.[7] HashiCorp and LinkedIn took 4-5 years. Twilio took 5-6 years with others such as Auth0, Zapier, and Wix not far behind.[8]

Fastest to Reach $100M ARR
Wiz – 18 Months[1]

Average ARR at IPO
$223M[2]

Valuation at IPO
19.8X ARR[3]

ARR to FTE at IPO
$220K[4]

ARR Median Growth Rate at IPO
55%[5]

SECTION 2: STUDY GOALS AND FIRMOGRAPHICS

2.1 KEY QUESTIONS TO ANSWER

In September 2023, the research team at Ordway launched a project to better understand how ARR is defined, calculated, and reported at SaaS and cloud companies. There are approximately 4M software firms based in the US that report on ARR. Unfortunately, more than 99.999% of these are private companies for which it is not possible to conduct any meaningful analysis. As a result, the Ordway research team elected to focus the analysis on publicly traded companies instead. We believe that many of the private SaaS and cloud providers, with long-term aspirations of an IPO, are following the example of the larger public companies in reporting financial metrics such as ARR. As a result, the practices of public companies offer an excellent window into how all SaaS and cloud providers should be thinking about ARR.

Questions that we were seeking answers to included:

ARR's Relevance and Use in Financial Reporting
- To what extent is ARR referenced in investor communications?
- Do public companies report ARR numbers to investors?
- Is ARR considered a "key business metric?"
- How many use ARR as the basis of retention metrics or customer expansion metrics?

Definition and Formula for ARR
- How do publicly traded companies define ARR?
- What are the various formulas used to calculate ARR?

Customer Segments and Revenue Sources included in ARR
- When in the customer lifecycle do companies add ARR for new accounts to their reporting?
- When in the customer lifecycle do companies remove ARR for churned accounts from their reporting?
- Are month-to-month, pay-as-you-go accounts included in ARR?
- Are variable fees generated from usage-based pricing models included in ARR?
- Are variable fees generated from payments and financial transactions included in ARR?
- Are professional services, customer support, and managed services included in ARR?

2.2 STUDY FIRMOGRAPHICS - DETAILS

We reviewed 136 total companies, 68 of which came from the BVP Nasdaq Emerging Cloud Index. The remaining 68 companies were selected by Ordway to gain a more diverse sampling of different business models and revenue streams. The additional 68 companies came from subsectors such as:

Subsector	Description	Examples
Software/Cloud Mega-Vendors	Selling a mix of consumer and business products including hardware, professional services, software and cloud services.	Alphabet Microsoft Oracle
Pre-Cloud Software Vendors	Traditional software vendors that were not born in the cloud and historically had sold perpetual licenses with maintenance contracts.	Appian Informatica PegaSystems Splunk
Cloud Infrastructure	Providers specializing in value-added networking services, communications-as-a-service, and cloud platform management that often have consumption-based pricing models.	Akamai Bandwidth Hashi Corp
Hardware + Software	Traditional hardware vendors with a meaningful percentage of revenue coming from software applications, including some transitioning to a software-led business model.	F5 Palo Alto Networks Cisco
FinTech	Vertical SaaS applications focused on the banking and securities trading sectors	Alkami Blend MeridianLink
MarTech	Business applications that focus on sales, marketing, and customer experience functionality	DoubleVerify Kaltura ON24
Supply Chain	Business applications that focus on supply chain management for retail or industrial value networks	E2open SPS Commerce

LIST OF 136 COMPANIES REVIEWED

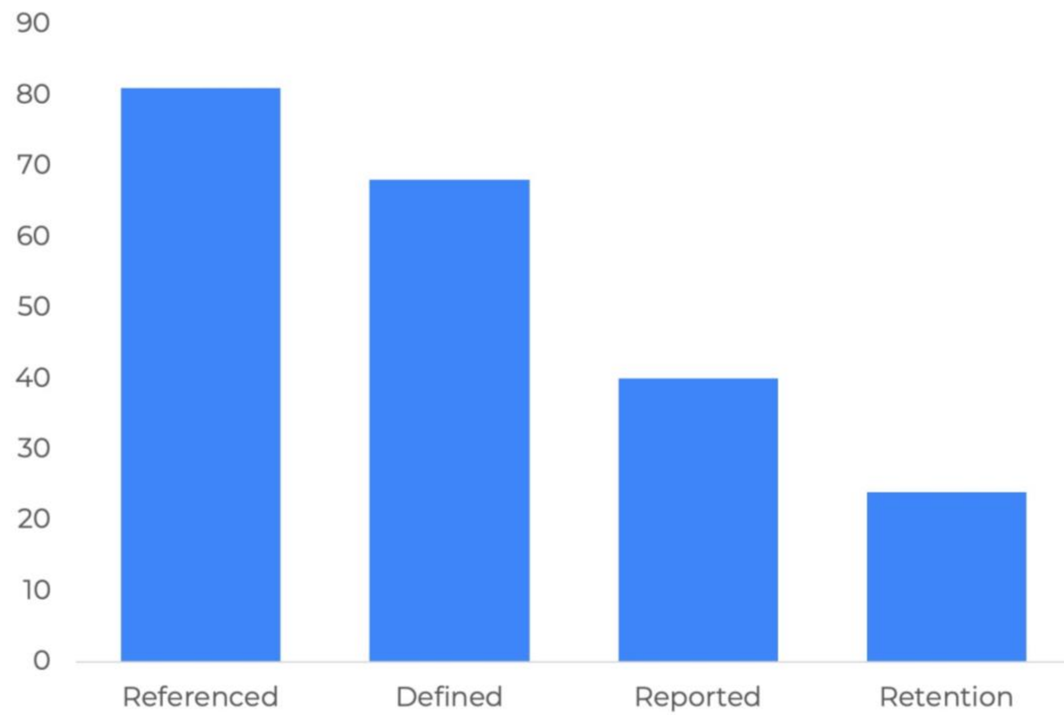
2U*	Datadog*	Lightspeed	ServiceNow*
Adobe*	Definitive Health*	LivePerson	Shopify*
Agora	Descartes	MeridianLink	SimilarWeb
Akamai	DigitalOcean*	Microsoft	Smartsheet*
Alkami	Disco	Monday.com*	Snowflake*
Alphabet	Docebo	MongoDB*	SolarWinds
Alteryx	DocuSign*	nCino*	Splunk
Amazon.com	Domo	New Relic*	Sprinklr
Amplitude*	DoubleVerify	Okta*	Sprout Social*
AppFolio*	Doximity	Olo*	SPS Commerce
Appian	Dropbox*	ON24	Squarespace*
Asana*	Dynatrace	OpenText	SS&C Technologies
Atlassian*	E2open	Oracle	Tenable*
Autodesk	Elastic*	PagerDuty*	Toast*
AvidXchange*	Enfusion	Palantir	Twilio*
Backblaze	Engagesmart	Palo Alto Networks	UiPath*
Bandwidth	Everbridge*	Paycom*	Varonis
Bigcommerce*	EverCommerce	Paycor	Veeva Systems*
Bill.com*	Expensify	Paylocity*	Vertex
BlackLine*	F5 Networks	PayPal*	Vimeo*
Blend Labs	Fastly*	PegaSystems	VMware
Block (Square)*	Five9*	Powerschool Holdings	VTEX
Box*	Fortinet	Procore*	Walkme
Braze*	Freshworks*	PROS Holdings	Weave
C3.ai*	Gitlab*	PTC	Wix*
Checkpoint	Hashicorp	Q2*	Workday*
Cisco	HubSpot*	Qualtrics*	Workiva*
Clearwater Analytics*	Informatica	Qualys*	Yext*
Cloudflare*	Instructure	Ringcentral*	Zeta Global
Confluent*	Intuit	Riskified*	ZipRecruiter
Consensus	JAMF	Salesforce*	Zoom*
Couchbase	JFrog*	Samsara	ZoomInfo*
Crowdstrike*	Kaltura	SEMRush	Zscaler*
Cvent	Klaviyo	SentinelOne*	Zuora*

**Components of BVP Nasdaq Emerging Cloud Comp Index as of June 2023*

SECTION 3: ARR USAGE IN PUBLIC COMPANY INVESTOR FILINGS

Our analysis found that ARR is frequently referenced in investor communications by publicly traded companies. Of the 136 SaaS and cloud companies we analyzed, 86 (63%) referenced ARR or a variant in their annual SEC filings, investor presentation, or recent earnings call. Four of the 86 only made one brief mention of ARR in an earnings call or filing, but provided no meaningful information about its definition, use, or actual results. As a result, we will focus the remainder of the report on the 82.

- **Referenced** – 82 of the 136 companies referenced ARR in a 10-K, earnings call, or investor presentation.
- **Defined** – 69 of the 82 companies referencing ARR also provided a definition.
- **Reported** – 40 of the 82 companies referencing ARR also reported on their quarterly/annual results as well as historicals.
- **Retention** – 26 of the 82 companies referencing ARR only did so in the context of other operating metrics such as Net Retention or Large Customer Growth.



SECTION 4: THE DEFINITION OF ARR

Although it hasn't appeared in any dictionaries yet, ARR is a part of the everyday vocabulary at SaaS and cloud companies. However, if Merriam-Webster were to add ARR to the English dictionary, there would likely be a dispute about exactly how to define it. There is no official definition of ARR because ARR is not an officially recognized accounting metric.

In the US, the Financial Accounting Standards Board (FASB) sets the standards for the Generally Accepted Accounting Principles (GAAP) that define how businesses report their financial statements. However, ARR was not developed by the FASB or any other accounting board. It was developed over time by the venture capital and software community. As a result, there is no official guidance on what should or should not be included in ARR and how to perform the calculations.

If you asked a group of venture capitalists, founders, and SaaS leaders to define ARR most would answer that it is Monthly Recurring Revenue (MRR) multiplied by 12.

However, the definition above leaves a lot of "wiggle room" for finance teams to adjust the calculations in ways that make ARR numbers higher. ARR is 12X MRR, but how do you define MRR?

SEC Filings from publicly traded SaaS and cloud companies caution investors about the ambiguity of the term ARR and its usefulness for comparison purposes.

EXAMPLE DEFINITIONS

"ARR **does not have a standardized meaning** *and is therefore unlikely to be comparable to similarly titled measures presented by other companies.*

Backblaze

"ARR **does not have a standardized meaning** *and is not necessarily comparable to similarly titled measures presented by other companies."*

Samsara

"Other companies in our industry **may calculate annual recurring revenue differently***, which reduces its usefulness as a comparative measure."*

MerdianLink

4.1 GAAP REVENUE VS ARR

Some of the 136 companies reported on “subscription revenue” or “recurring revenue” as lines on their income statement. These figures are not ARR, however. These revenue line items are the historical, audited, GAAP financials that reflect the actual revenues generated over the past year. ARR is an unaudited, non-GAAP operating metric, that provides a forward-looking projection of recurring revenues over the next 12 months. The investor filings highlight the distinction between ARR as an operating/performance metric and US GAAP revenue – both historical and forecasted.

	GAAP RECURRING REVENUE	ARR
Timeframe	Historical	Forward Looking
Revenue	Actual Revenues	Annualized Projected Revenues
Type of Audit	Audited	Unaudited
Standards	GAAP Accounting (ASC 606 or IFRS 15)	Operating Metric (No Standard)
Type of Metric	Financial Metric	Operating Metric

EXAMPLE DISCLOSURES ON ARR VS GAAP REVENUE

“ARR should be viewed independently of revenue, and **does not represent our U.S. GAAP revenue** *on an annualized basis, as it is an operating metric that can be impacted by contract start and end dates and renewal rates.”*

Amplitude

“ARR should be viewed independently of revenue and **does not represent our GAAP revenue** *on an annualized basis or a forecast of revenue, as it is an operating metric that can be impacted by contract start and end dates and renewal rates.”*

Braze

“ARR is a performance metric and **should be viewed independently of revenue and deferred revenue**, *and is not intended to be a substitute for, or combined with, any of these items.”*

Alteryx

4.2 DETAILED DEFINITIONS OF ARR

Of the 82 companies that referenced ARR or a variant, 68 of them (84%) included a definition or explanation of how the ARR calculation is performed. There were 17 companies that referenced ARR or a similar term, but did not disclose a formal definition.

The most common themes in the definitions:

- **Annualized Revenue** - Expected over the next 12 months from the current active set of customer contracts. It is measured as a point in time such as the end of the period.
- **Operating Metric** - Used to measure new customer acquisition, customer retention, and customer expansion. Useful to understand the health of the business and future growth
- **Assumes No Changes to Customer Contracts** - Renewals are performed on time. There are no cancellations. There are no upgrades or downgrades.
- **Distinction from GAAP** - ARR should not be confused with GAAP revenue or deferred revenue. It is not a replacement or forecast for revenue.

Most, but not all, mentioned that ARR is based upon customers with subscriptions or contract commitments. However, as we will discuss in later sections, many include customers with monthly plans and usage or transactional revenue that is variable in nature.

EXAMPLE DEFINITIONS OF ARR

"We define ARR as the **annualized value** of customer subscription contracts as of the measurement date, assuming any contract that expires during the next 12 months **is renewed on its existing terms** (including contracts for which we are negotiating a renewal).

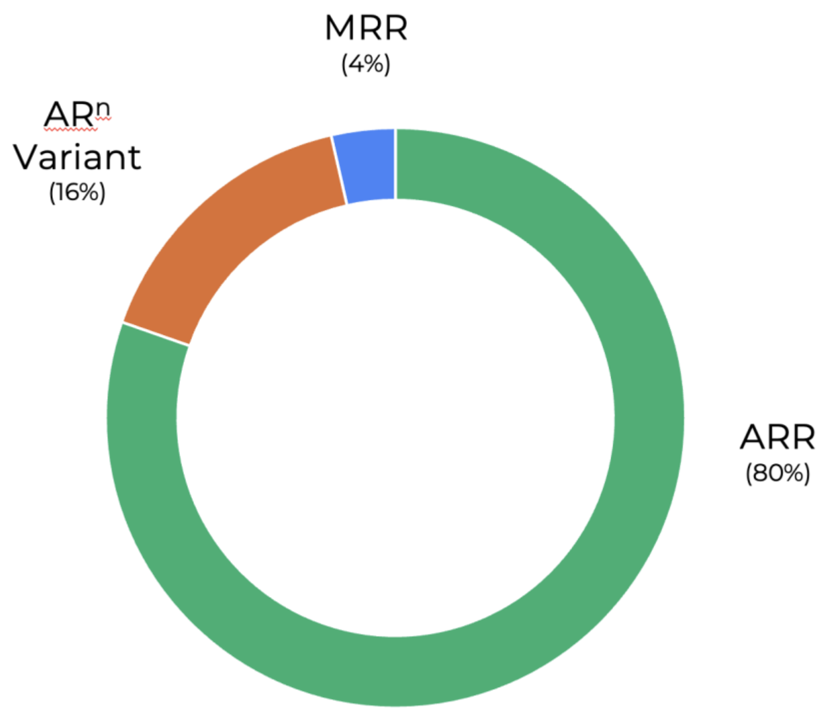
Our calculation of ARR is not adjusted for the impact of any known or projected future events (such as customer **cancellations, upgrades or downgrades, or price increases or decreases**) that may cause any such contract not to be renewed on its existing terms. "

WalkMe

4.3 ARR VARIANTS - AR^N

Just as there is not common agreement on the definition of ARR, there is also not a consistent agreement on what the letters A, R, and R stand for. For example, some companies use “Annualized” while others use “Annual” for the “A.” SaaS and cloud providers may use two, three, or four Rs, which may or may not include the words “recurring revenue.”

- **ARR** – Most (73) of the companies used the terms ARR (just the acronym), Annual Recurring Revenue, or Annualized Recurring Revenue.
- **AR^n Variants** - 8 companies referenced a metric that is interchangeable with ARR such as Annualized Recurring Revenue Run Rate or Annualized Value of Recurring Subscriptions.
- **MRR** – Only 1 company referenced Monthly Recurring Revenue (MRR), but made no mention of annualized version.



HOW PUBLIC SAAS COMPANIES REPORT ON ARR

EXAMPLE DEFINITIONS OF AR[N]

ANNUALIZED REVENUE

“Annualized Revenue is an approximation of total revenue for the full year based on Q1’22 and Q1’23 revenue multiplied by 4.”

EngageSmart

ANNUALIZED RECURRING RUN RATE

“We monitor Annualized Recurring Run-Rate as a key operational measure of the scale of our subscription and payment processing services for both new and existing customers.”

Toast

ANNUALIZED REVENUE RUN-RATE

“*We define ARR as the annualized revenue run-rate of subscription agreements from all customers as of the last date of the specified period.*”

SproutSocial

ANNUALIZED EXIT MONTHLY RECURRING SUBSCRIPTIONS

“*Our ARR equals our Monthly Recurring Subscriptions multiplied by 12. Our Monthly Recurring Subscriptions equals the monthly value of all customer recurring charges at the end of a given month.*“

RingCentral

SECTION 5: INVESTOR PRESENTATION AND POSITIONING

Along with a definition, many of the SaaS and cloud providers we reviewed cited reasons for why they measure and report on ARR. Some highlight ARR's value as a future growth indicator. Others use it to measure new customer acquisition and existing customer expansion. Another common theme we observed in the disclosures is ARR's importance as a primary metric the management team uses to understand the health of the business and make business decisions.

EXAMPLE DISCLOSURES ON ARR'S IMPORTANCE

"We use Annualized Recurring Revenue ("ARR") as a measure of our revenue trend and an **indicator of our future revenue opportunity from existing recurring customer contracts**.*"*

Kaltura

"ARR is **the key performance metric** *we use in managing our business because it illustrates our ability to* **acquire new subscription customers** *and to maintain and* **expand our relationships with existing subscription customers**.*"*

UiPath

"ARR highlights trends that may **be less visible** *from the face of our financial statements* **due to ratable revenue recognition**.*"*

Samsara

"We're evolving our focus to annual recurring revenue. **That's the number one metric by which we are running the business**, *and not – and we're retiring the net revenue retention metric that we had been disclosing in the past because that was revenue-based, that was looking backwards, it wasn't ARR based."*

Everbridge

5.1 THE PRESENTATION OF ARR

Of the 81 companies that referenced ARR, about half of the SEC filers actually reported their ARR results in addition to their GAAP revenue. When reported on, ARR is typically listed as a Key Business Metric in the Management's Discussion and Analysis (MD&A) section of the 10-K.

A handful of companies, provided more granular reporting on multiple ARR metrics such as

- **Customer Segment** - Recurring revenue generated by large, enterprise accounts (e.g. with over $1B in annual revenues) versus from small business or middle market accounts.
- **Product Line** - High growth product category A versus more mature, slower growth product category B
- **Distribution Channel** - Recurring revenue generated from contracts signed by the company's own direct sales organization versus contracts generated by third-party distribution channels.
- **Deployment Model** - ARR from offerings delivered as-a-Service in the provider's cloud versus software that is self-managed by the customer on-premise (corporate data center or private cloud).
- **Licensing Model** - Recurring revenue generated from the maintenance contracts associated with perpetual licenses versus recurring revenue generated from term licenses and subscription contracts.

EXAMPLES OF ARR SEGMENT REPORTING

"**ARR for Third-party Reseller customers** *is defined as the annualized recurring amount of all contracts with Third-party Reseller customers as of the last day of the reporting period."*

Yext

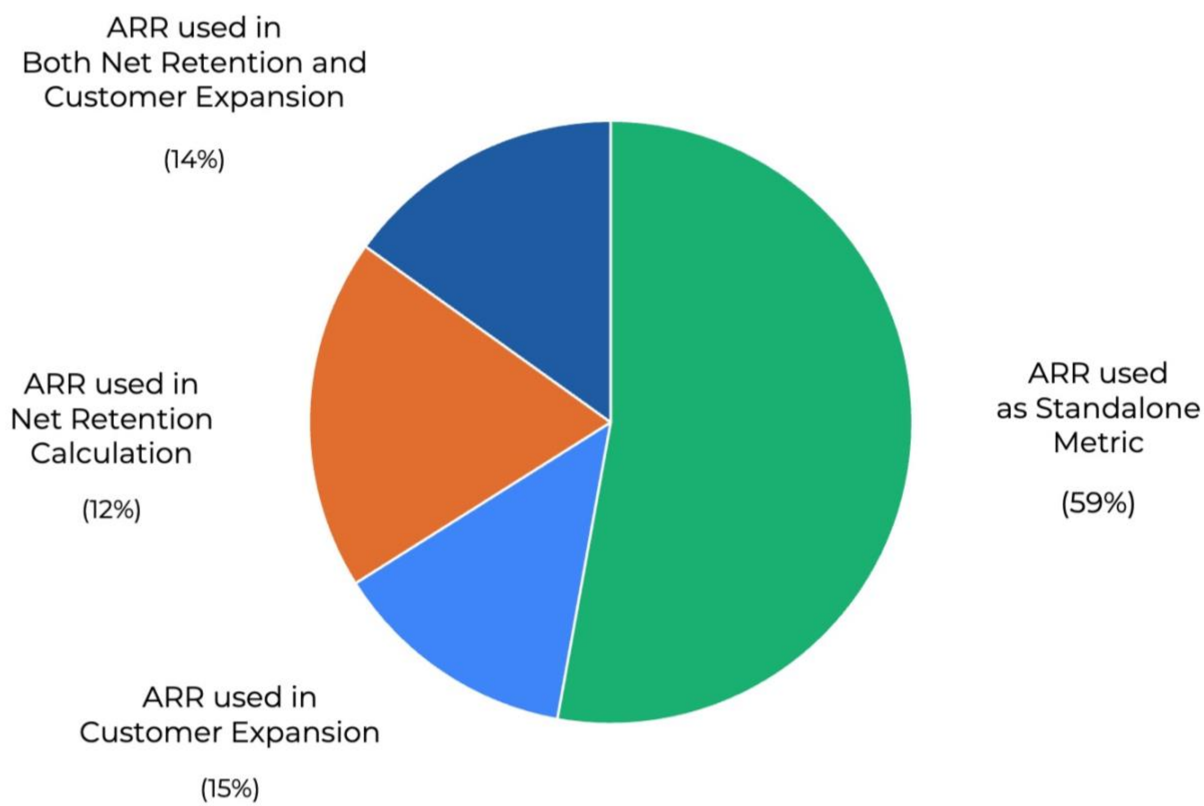
"**Cloud ARR** *represents* **the portion of ARR that is attributable to our hosted cloud contracts**.

Cloud ARR is **a subset of our overall Subscription ARR**, *and by providing this breakdown of Cloud ARR, it provides visibility on the size and growth rate of our Cloud ARR within our overall Subscription ARR."*

Informatica

5.2 ARR USE IN OTHER KEY BUSINESS METRICS

About one third of the companies that referenced ARR only included it for the purposes of calculating another Key Business Metric.   For some organizations ARR is used to compute a retention metric such as Net Revenue Retention Rate. Others used ARR to track customer expansion metrics such as the Number of Accounts with greater than $100K or $1M in ARR. Some SaaS and cloud providers used ARR for both retention and expansion.



SECTION 6: THE CONTRACT LIFECYCLE AND ARR

Some SaaS and cloud services are immediately activated for use, "on demand." The customer registers for a new account online, enters payment details, and is immediately granted access to the product. However, other SaaS and cloud offerings might require several days, weeks, or months of effort to configure and implement the service. In these scenarios, a professional services organization will work with the customer to migrate data, configure settings, and on-board users to the platform. As a result, there will be customers who have signed contracts and paid invoices, but are not yet using the services.

6.1 BOOKED, BUT NOT IMPLEMENTED

It is common for SaaS businesses to report on "contracted ARR" which includes ARR that has been contractually committed by a customer even if the customer is not yet actively using the product. Others take a more conservative approach and limit "ARR" to recurring revenue from customers who have been implemented and gone live.

EXAMPLES OF BOOKED, BUT NOT IMPLEMENTED INCLUDED IN ARR

"Our ARR also includes the contracted minimums associated with all contracts in place at the end of the quarter **that have not yet commenced**…"

Q2

"We define ARR as the annualized value of subscription contracts that have **commenced revenue recognition as of the measurement date.**"

Samsara

"ARR, a non-GAAP financial measure, is defined, as of a specific date, as contracted recurring revenue, **including contracts with a future start date**…"

PROS Holding

6.2 LATE RENEWALS

Another group of customers that creates complexity for ARR calculations are those that renew after the contract expiration date. In some SaaS businesses, these late renewal scenarios happen with a regular frequency.

SaaS providers will often continue to provide the service with the expectation that the customer will renew in the near future.

If you have a high level of confidence in successfully locking in a renewal within 30, 60, or 90 days of the contract expiration should it continue to be reported as part of the current ARR?

Many SaaS and cloud providers do include these types of late renewals in ARR reports.

If a customer formally requests to cancel, then the account is removed from ARR typically.

EXAMPLES OF LATE RENEWALS IN ARR

"The aggregate ARR calculated at the end of each reported period represents the value of all contracts that are active as of the end of the period, **including those contracts that have expired but are still under negotiation for renewal. We typically allow for a grace period of up to 6 months past the original contract expiration quarter during which we engage in the renewal process before we report the contract as lost /inactive.** *This grace-period ARR amount has been less than 2% of the reported ARR in each period presented.* **If there is an actual cancellation of an ARR contract, we remove that ARR value at that time**."

Informatica

"ARR is calculated as the sum of the annualized value of our subscription contracts as of the measurement date, **including existing customers with expired contracts that we expect to be renewed**."

ON24

"To the extent that we are negotiating a renewal with a customer after the expiration of the subscription, **we continue to include that revenue in ARR if we are actively in discussion** *with such an organization for a new subscription or renewal, or until such organization notifies us that it is not renewing its subscription."*

Crowdstrike

SECTION 7: CUSTOMER SEGMENTS AND ARR

SaaS and cloud providers are selective about which customer segments to include in ARR reporting. Just because a customer uses a product with a recurring revenue stream, does not necessarily mean that it will be included in ARR.

7.1 NON-CORE MARKET SEGMENTS

Certain segments of customers may no longer be an investment focus or strategic to the SaaS or cloud provider. The customers might be grouped by revenue size (enterprise vs small business), vertical industry (government or commercial), or geography (North America vs Europe). If the segment is not a focus for growth it is less relevant for a forward-looking projection such as ARR.

EXAMPLE THAT EXCLUDES NON-CORE SEGMENTS

"Our Annualized Revenue calculation excludes (i) agreements that were not entered into through ordinary sales channels, (ii) revenue generated from customers using only our registrar product, and (iii) **customers using our consumer applications, such as 1.1.1.1 and WARP**, *which agreements and customers together represent an insignificant amount of our revenue."*

Cloudflare

"*We only consider revenue from our enterprise, mid-size, and third-party reseller customers when calculating this metric since* **small business customers have limited licenses, experience inherently high turnover, and continue to decline as a percentage of total revenue**. "

Yext*

*Excerpt from Yext's January 31, 2022 10-K filing. Note that the January 31, 2023 10-K filing was amended to expand the definition of ARR to include small businesses. The reference above is included for educational purposes.

7.2 CUSTOMERS WITH SHORT-TERM CONTRACTS

For a variety of reasons, SaaS and cloud providers may enter into short-term contracts of less than twelve months with customers. These arrangements might be to satisfy a short-term, temporary need or a strategic approach to win a major account by offering a proof of concept. Many of these types of contracts were entered into during the COVID-19 pandemic.

Another common scenario in contracts which include a termination for convenience clause and have no guarantee that they will be twelve months or longer in length.

EXAMPLES OF INCLUDED CUSTOMER SEGMENTS WITH SHORT-TERM CONTRACTS

"Prospective merchants that have joined the platform through **special new merchant trial incentives are included in MRR** *at their trial price while merchants on free trials are excluded from the calculation of MRR through the duration of the free trial."*

Shopify

EXAMPLES OF EXCLUDED CUSTOMER SEGMENTS WITH SHORT-TERM CONTRACTS

"ARR represents the annualized recurring value of all active subscription contracts at the end of a reporting period and excludes the value of non-recurring revenue such as professional services revenue as well as ***contracts with new customers with a term of less than one year."***

Zuora

"We exclude the impact of revenue that we expect to generate from fixed-term contracts that are each associated with an existing account, **are solely for additional temporary agents***, and are not contemplated to last for the duration of the primary contract for the existing account from our determination of monthly recurring revenue. We additionally exclude the impact of accounts that are free-trial accounts that did not result in paid subscriptions, and temporary coupons, such as short-term discounts."*

Zendesk*

*Zendesk is now private and was not one of the 136 companies analyzed in the 2023 study. The above excerpt is from their last annual report as a public company. Included for educational purposes.

7.3 CUSTOMERS ON MONTHLY PLANS

Most SaaS providers prefer to have customers commit to annual contracts. In fact, many providers only offer customers a choice of annual plans. However, a meaningful number of providers offer monthly, pay-as-you-go options as well.

SAAS & CLOUD PROVIDERS OFFERING MONTHLY PLANS		
Google Workspace	Amazon Web Services	Hubspot
Zoom	Microsoft Azure	DigitalOcean
Monday.com	Google Cloud Platform	Squarespace

Some providers do include monthly customers in their ARR calculations. Others deliberately exclude these pay-as-you-go accounts.

EXAMPLES OF ARR THAT EXCLUDE MONTH-TO-MONTH CUSTOMERS

"We define ARR as the revenue customers contractually committed to over the following 12 months assuming no increases or reductions in their subscriptions. **ARR excludes services and pay-as-you-go arrangements**."

Confluent

"We **exclude** *from our calculation of ARR* **any revenues derived from month-to-month agreements** *and/or product usage overage billings, where customers are billed in arrears based on product usage.:*

Dynatrace

EXAMPLES OF ARR THAT INCLUDE MONTH-TO-MONTH CUSTOMERS

*"***For monthly subscriptions, we take the recurring revenue run-rate of such subscriptions for the last month of the period and multiply it by 12 to get to ARR***. While monthly subscribers as a group have historically maintained or increased their subscriptions over time, there is no guarantee that any particular customer on a monthly subscription will renew its subscription in any given month, and therefore the calculation of ARR for these monthly subscriptions may not accurately reflect revenue to be received over a 12-month period from such customers."*

Freshworks

"MRR is defined as the recurring revenue run-rate of subscription agreements from all Enterprise customers for the last month of the period, **including revenue from monthly subscribers who have not provided any indication that they intend to cancel their subscriptions***."*

Zoom

"The ARR **includes monthly subscription customers** *so long as we generate revenue from these customers. We annualize our monthly subscriptions by taking the revenue we would contractually expect to receive from such customers in a given month and multiplying it by 12."*

Jfrog

TERMINATION FOR CONVENIENCE

"Annual recurring revenue ("ARR") represents the annualized value of our committed customer subscription and SaaS contracts as of the end of the reporting period, assuming any contract that expires during the next 12 months is renewed on its existing terms and **any applicable TFC rights are not exercised***."*

VMware

SECTION 8: PRICING AND ARR

Historically, the majority of SaaS and cloud providers have used the subscription pricing model for which there is a known, contractually guaranteed stream of recurring revenue to be generated over the contract term. Calculating ARR for these fixed-fee subscription contracts is relatively straightforward.

In recent years, however, alternative models such as usage and percentage pricing have become popular as a strategy to differentiate and acquire new accounts. For example, usage-based pricing has been the dominant pricing model in the cloud infrastructure space since its inception (think AWS). Usage is now becoming popular in vertical SaaS and business applications as well. Percentage pricing has been popular in payment processing and financial services but is becoming more common in enterprise finance applications as well.

MODEL	DESCRIPTION	EXAMPLE
Fixed Fee Subscription	Fixed fee for contract lifecycle. Adjusted only if customer upgrades/downgrades.	Tier A = $50 per user/month Tier B = $100 per user/month Tier C = $200 per user/month
Usage-Based Pricing	Variable fee based upon customer's actual consumption of service.	$0.25 per hour $0.50 per GB $0.75 per transaction
Percentage Commission	Variable fee based upon the dollar value of transactions processed.	0.1% of GMV 0.2% of referred business 0.3% of order value
Hybrid Models	Combination of fixed fee subscriptions, usage-based pricing, and percentage pricing	$100 per month *plus* $0.50 per unit *plus* 0.1% of transaction value

Unlike traditional, fixed fee subscription models, these new pricing models result in variable revenue streams that change monthly, which creates complications for reporting on ARR.

8.1 PRODUCTS WITH USAGE-BASED PRICING

With usage-based pricing, the customer is billed based upon the number of units consumed or transactions processed during a month. Historically, usage-based pricing has been most popular at the infrastructure and platform layers of the cloud. Sectors such as compute, storage, database, artificial intelligence, messaging, observability, search, and content distribution networks have almost universally adopted a usage-based pricing model.

EXAMPLES OF USAGE-BASED PRICING MODELS

SECTOR	APPLICATION	CONSUMPTION VALUE METRIC	EXAMPLE PROVIDER
Telecom	SMS	Per text message	Twilio
Telecom	Voice calling	Per minute	Bandwidth
Network	Compute	Per hour & config (CPU, memory, storage)	Alphabet
Cloud	Data transfer	Per GB transferred & per request	Fastly
Monitoring	API & browser tests	Per 1K test runs	DataDog
Monitoring	System health	Endpoints per month	Oracle
Content	Audio translation	Per media minute	Microsoft
AI/ML	Document extraction	Per page scanned, field extracted	Amazon
Language	Text translation	Per million characters	Alphabet
Database	Audit records	Per 10,000 audit records per month	Oracle
Marketing	Lead generation	Per database contact	Hubspot
Legal	E-discovery	Per GB of data stored/analyzed	Cisco
Transportation	Fleet management	Per vehicle	Samsara
Healthcare	Genomics	Per gigabase	Microsoft

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

The debate about ARR and usage-based pricing typically centers around whether it is truly “recurring” because the amount of revenue generated varies month-to-month based on actual consumption. Most SaaS and cloud providers with usage-based pricing provide discounting incentives for customers to enter into annual contracts that provide more predictability for future revenue streams. For example, a popular model is to offer the customer a 20-40% discount in exchange for a commitment to a monthly minimum quantity of usage. For example, based on historical consumption patterns, a customer may be comfortable agreeing to a monthly minimum of 10,000 API calls, which represents $500/month in committed, recurring revenue.

ARR FOR USAGE-BASED PRICING

Many of the public companies with usage-based pricing do report on ARR. However, they approach the calculation differently. Instead of multiplying the contracted, monthly pricing by 12, the historical GAAP revenue is annualized. The most popular models involve multiplying the trailing 3 months (or 90 days) revenue by 4 or multiplying the trailing month (or 30 days) revenue by 12.

EXAMPLES OF USAGE-BASED PRICING INCLUDED IN ARR

*“Our Annualized Revenue metric also **includes any usage charges by a customer during a period**, which represents a small portion of our total revenue and may not be recurring.”*

Cloudflare

“We updated the definition of MRR as of the quarter ended September 30, 2021 **to capture usage from subscriptions with committed contractual amounts** *and applied this change retrospectively.”*

DataDog

“ARR includes the revenue we expect to receive from our customers over the following 12 months based on contractual commitments and, in the case of Direct Sales Customers of MongoDB Atlas, **by annualizing the prior 90 days of their actual consumption** *of MongoDB Atlas, assuming no increases or reductions in their subscriptions or usage. “*

MongoDB

8.2 HYBRID USAGE-BASED AND SUBSCRIPTION PRICING

There are compelling reasons to offer subscription pricing as well as many arguments for adopting a usage-based approach. Many SaaS and cloud providers are electing to offer a combination of both, which creates an interesting challenge for calculating ARR. There is no consistent practice across the industry. Some SaaS and cloud providers include the usage fees in their definition of recurring revenue whereas others do not.

EXAMPLES WITH USAGE EXCLUDED FROM ARR

"*Our ARR amounts* **exclude** *professional services,* **overages from subscription customers** *and legacy revenue.*"

ON24

"*We* **exclude** *from our calculation of ARR any revenues derived from month-to-month agreements and/or* **product usage overage billings**, *where customers are billed in arrears based on product usage.*"

Dynatrace

EXAMPLES OF USAGE & SUBSCRIPTION COMBINED IN ARR

"*The calculation includes the annualized contractual minimum commitment and* **excludes amounts related to overages** *above the contractual minimum commitment.*"

Yext

8.3 PERCENTAGE PRICING MODELS

The percentage model is most common in platforms with financial transactions - e-commerce, payments, and banking.   For example, many technology providers process payments on behalf of customers and take a percentage of the interchange fees generated from credit card transactions. Others do not get involved in payment processing, but simply track the dollar value of transactions processed on their platforms each month and invoice for a small percentage of the total each month.

SECTOR	PRICING BASED UPON PERCENTAGE OF	EXAMPLE PROVIDER
Retail Point-of-Sale	Gross merchandise value – From the purchases processed on the hardware terminals or point of sale software.	Toast, Lightspeed
eCommerce Transactions	Gross merchandise value - From e-commerce orders placed based by consumers or businesses on the platform.	BigCommerce, Wix
Payroll Processing	Account balance – From interest generated on customer balances temporarily held in payroll processor’s bank account before disbursement to employees.	Paycom, Paylocity
Accounts Payable	Invoice value – If an accelerated payment is offered to the supplier to remit funds early vs the contracted terms (e.g. Net 30). Known as supply chain finance.	AvidExchange
Expense Reports	Travel & entertainment purchases – Made by employees on the corporate card and submitted for reimbursement.	Expensify, Bill.com
App Marketplaces	App purchases - Revenue sharing model for developers that list apps on a SaaS or cloud provider’s marketplace.	Salesforce, Amazon
Online Referrals	Purchases by referred web traffic - E-commerce transactions generated from end-users that the platform refers to 3rd party sites.	Shopify
Investment Management	Assets Under Management (AUM) - Assets might include stocks, bonds, mutual funds, ETFs, or other financial securities.	Clearwater Analytics

ARR FOR HYBRID PRICING WITH PERCENTAGE MODELS

Few SaaS and cloud providers generate revenue exclusively from a percentage pricing model. Most have a hybrid model that combines a percentage with fixed subscription fees and per transaction (usage-based) pricing.

Calculating "recurring revenue" for these hybrid pricing models is challenging, because the amount of revenue generated varies month-to-month based upon the dollar value of transactions processed. ARR is calculated using a similar approach to the method described above for usage-based pricing. The historical GAAP revenue is annualized into a run-rate. The time period for the run-rate varies. Some use the past 30 days revenue while others use the past 12 months.

EXAMPLES OF PRODUCTS WITH SUBSCRIPTIONS & PAYMENT TRANSACTION ARR

"We monitor ARR as a key operational measure of the scale of our subscription and payment processing services for both new and existing customers. To calculate this metric, we first calculate recurring run-rate on a monthly basis. Monthly Recurring Run-Rate, or MRR, is measured on the final day of each month for all restaurant locations live on our platform as the sum of (i) our monthly subscription services fees, which we refer to as the subscription component of MRR, and ***(ii) our in-month adjusted payments services fees, exclusive of estimated transaction-based costs, which we refer to as the payments component of MRR****."*

Toast

"Annual run rate revenue ("ARRR"). We calculate ARRR as the monthly revenue from subscription fees and revenue generated in conjunction with associated fees (fees taken or assessed in conjunction with commerce transactions) in the last month of the period multiplied by 12."

Squarespace

SECTION 9: PRODUCT LINES

Just because a customer uses a product with a recurring revenue stream, does not necessarily mean that it will be included in ARR calculations. Some SaaS providers exclude specific product lines from the ARR calculation. The most common example is legacy products that have been discontinued for which no growth is expected.

Another example of non-core products that might be excluded from ARR calculations is consumer software applications. These would be excluded when the majority of revenue is derived from B2B software.

EXAMPLES OF PRODUCT LINES EXCLUDED FROM ARR

*"We calculate our RingCentral Office Annualized Exit Monthly Recurring Subscriptions ("Office ARR") in the same manner as we calculate our ARR, except that primarily subscriptions from RingCentral Office and customer engagement solutions are included and subscriptions from **RingCentral professional and fax are excluded when determining Monthly Recurring Subscriptions** for the purposes of calculating this key business metric."*

RingCentral

*"ARR is calculated as the sum of the annualized value of our subscription contracts as of the measurement date, including existing customers with expired contracts that we expect to be renewed. **Our ARR amounts exclude** professional services, overages from subscription customers and **Legacy revenue**. "*

ON24

SECTION 10: DISTRIBUTION CHANNELS

Some SaaS and cloud providers exclude revenues generated from third-party distribution channels from ARR calculations, electing to only include revenue booked through the direct sales. In other cases, certain elements of revenue are excluded from their ARR calculations. Examples include fees paid out to third parties via partner commissions, rebates, or processing fees.

"We define "ARR" as the annual value of our customer subscription contracts as of the specified point in time **excluding any commissions owed to our partners**....*ARR would* **exclude any impact for Bad Debt** *and Partner Commissions (as noted above) and would also differ from Revenue due to timing of revenue recognition."*

Hubspot

"Annualized Recurring Revenue ("ARR") represents the annualized revenue run-rate of active subscriptions, term licenses, operating leases and maintenance contracts at the end of a reporting period, **net of rebates to customers and partners as well as certain other revenue adjustments**. *Includes both revenue recognized ratably as well as upfront on an annualized basis."*

Cisco

SECTION 11: DEPLOYMENT MODELS AND ARR

11.1 PERPETUAL LICENSE MODELS

Many of the larger, publicly traded software firms we analyzed, were born in the 1980s or 1990s when the dominant model for software was to purchase a license for the corporate IT team to manage on-premise in the customer's data center. The revenues generated from software providers in this traditional model fell into two categories:

- **Perpetual Licenses** - One-time fees paid by the customer in exchange for a perpetual right to use the software application. As the customer expanded adoption of the software additional licenses needed to be purchased and additional licensing fees paid.
- **Maintenance Fees** - Annual recurring fees are required to gain access to technical support from the vendor as well as most upgrades. Fees ranged from 15-20% of license costs. Major upgrades sometimes required additional licensing fees.

Traditional software firms have adopted SaaS and migrated their customers to the cloud over the past decade. Some such as Adobe were early adopters and quickly shifted their customer base to SaaS. Others have pursued a more gradual transition with a meaningful percentage of accounts still on-premise or running in a private cloud.

To ease the transition, some software providers have introduced new subscription models or term licenses as an alternative to the traditional perpetual license and maintenance contract model. These new term licenses/subscriptions are not delivered in the "as-a-Service" model, but instead self-managed by the customer. The customer can deploy the software in their own data center, if they have one, in what has been known as an "on-premise" model. Alternatively, the customer could deploy the technology in their own instance of a cloud computing environment such as Amazon Web Services, Microsoft Azure, or Google Cloud Platform.

TRANSITIONING TO SAAS

Checkpoint
Informatica
OpenText
Oracle
Pega Systems
PTC
Splunk

11.2 ARR FOR SELF-MANAGED SOFTWARE

Traditional licensed software vendors are not the only the companies with self-managed options in the list of 136 providers we analyzed. Several organizations founded between 2008 and 2014 have recently gone public offering both "as-a-Service" models and "self-managed" options to customers. Examples include HashiCorp, Elastic, Gitlab, C3.ai, MongoDB, and Confluent. The self-managed products are sold on a subscription basis and are typically deployed in the customer's own private instance of Amazon Web Services, Microsoft Azure, or Google Cloud Platform.

Companies with mixed deployment models do not limit their definition of ARR to just technology they deliver as-a-service. Software providers include the recurring elements of revenue in ARR regardless of even if the customer is self-managing the technology in their own corporate data center or a private cloud. Perpetual licenses are generally excluded from ARR due to the one-time nature of the transactions. However, the associated maintenance fees are recurring in nature as are term licenses.

Product Type	Management Model	Deployment Model	Revenue Characteristics	Included in ARR
Perpetual license	Self-managed by customer	Corporate data center or Private cloud	One-time fee(s)	No
Maintenance contract	Self-managed by customer	Corporate data center or Private cloud	Recurring fee	Yes
Subscription/ term license	Self-managed by customer	Corporate data center or Private cloud	Recurring fee	Yes
Software-as-a-Service	Delivered "as-a-service" by vendor	Vendor's cloud	Recurring fee	Yes

EXAMPLE OF PERPETUAL LICENSES EXCLUDED FROM ARR

ARR does not include invoiced amounts associated with perpetual licenses or professional services.

UiPath

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

EXAMPLES OF MAINTENANCE FROM PERPETUAL LICENSES INCLUDED IN ARR

"We believe that Maintenance ARR is a helpful metric for understanding our business since it represents the approximate annualized cash value collected over a 12-month period for all our maintenance contracts. **Maintenance ARR includes maintenance contracts supporting our on-premises perpetual licenses.***"*

Informatica

"Total ARR represents the annualized revenue run-rate of active cloud services, **term license and maintenance contracts** *at the end of a reporting period."*

Splunk

EXAMPLES OF SELF-MANAGED SOFTWARE INCLUDED IN ARR

"We calculate ARR by taking the monthly recurring revenue, or MRR, and multiplying it by 12. MRR for each month is calculated by aggregating, for all customers during that month, monthly revenue from committed contractual amounts of subscriptions, **including our self-managed** *and SaaS offerings but excluding professional services."*

Gitlab

SECTION 12: PEOPLE-BASED SERVICES AND ARR

Some SaaS and cloud providers with more complex products have professional services organizations that help customers install, manage, and customize the technology to meet the unique needs of their business. In some cases, these services are offered for a short duration such as during the implementation phase. In other cases, managed services or premium technical support might be offered throughout the contract lifecycle for a recurring monthly fee.

TYPES OF PROFESSIONAL SERVICES OFFERED BY SAAS AND CLOUD PROVIDERS

SERVICE	DESCRIPTION	FIXED FEES	TIMING
Professional Services	Other custom projects to provide. Examples include building customer-specific feature enhancements, preparing for major upgrades, or consolidating accounts following a merger.	One-time fee based upon project scoping and statement of work	Anytime during contract lifecycle.
Managed Services	Throughout contract term, provider is responsible for defined list of day-to-day operational tasks to perform to proactively manage the technology.	Monthly recurring fee published on price list	Throughout each month of contract term.
Premium Support Services	Customer gets access to premium level of technical support with faster response times (SLAs) or direct access to higher level resources such as engineers.	% of annual subscription fees Monthly recurring fee published on price list	Throughout each month of contract term.

In addition to the fixed fee, there is typically a variable per hour fee of $150-$250 charged for time worked in excess of the statement of work or productized offering scope.

12.1 PROFESSIONAL SERVICES

Many SaaS and cloud providers offer professional services engagements to customers to enable them to better realize the value from their software. Usually, these services are provided on a one-time basis for a fixed duration such as an upfront implementation and migration from another system. Providers might also offer services to support major customer lifecycle events such as upgrades or consolidations following mergers and acquisitions.

The majority of SaaS and cloud providers do not include revenue from professional services in their ARR calculations. However, there are a few notable exceptions.

EXAMPLES INCLUDING PROFESSIONAL SERVICES IN ARR

"Our ARR also includes the contracted minimums associated with all contracts in place at the end of the quarter that have not yet commenced, and revenue generated from Premier Services. ***Premier Services revenue is generated from select established customer relationships where we have engaged with the customer for more tailored, premium professional services resulting in a deeper and ongoing level of engagement with them, which we deem to be recurring in nature. ARR does not include revenue from professional services or other sources of revenue that are not deemed to be recurring in nature****."*

Q2

"For clarity, we use annualized invoiced amounts per customer subscription contract, **including certain premium professional services that are subject to contractual subscription terms***, as compared to revenue calculated in accordance with GAAP, to calculate our ARR."*

Braze

"We define ARR as the annual recurring revenue of subscription agreements, **including certain premium professional services that are subject to contractual subscription terms***, at a point in time based on the terms of customers' contracts."*

Amplitude

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

EXAMPLES EXCLUDING PROFESSIONAL SERVICES IN ARR

"Our calculation includes only subscription fee revenues and **excludes any professional services revenues** *and other revenues."*

MeridianLink

"ARR represents the annualized recurring value of all active subscription contracts at the end of a reporting period and ***excludes the value of non-recurring revenue such as professional services revenue*** *as well as contracts with new customers with a term of less than one year."*

Zuora

"We calculate ARR by taking the monthly recurring revenue, or MRR, and multiplying it by 12. MRR for each month is calculated by aggregating, for all customers during that month, monthly revenue from committed contractual amounts of subscriptions, including our self- managed and SaaS offerings but ***excluding professional services****."*

Gitlab

12.2 ARR FOR MANAGED SERVICES AND CUSTOMER SUPPORT

In some cases, services are provided throughout the contract term for a recurring fee. For example, some offer Managed Services that provide a package of on-going support services each month on a contracted basis. Others offer premium technical support that offers higher service level agreements or access to more highly trained support staff.

Should recurring revenue streams from Managed Services and premium support be included in ARR calculations? Our analysis of publicly traded companies found that the providers that offer managed services and premium support generally do include these revenue streams in ARR reporting.

EXAMPLES INCLUDING MANAGED SERVICES

*"We calculate Annual Recurring Revenue, or ARR, by annualizing platform subscriptions and **managed services revenues** recognized in the last month of the measurement period."*

Enfusion

EXAMPLES INCLUDING CUSTOMER SUPPORT

*"Total annual recurring revenue, which we define as the sum of cloud services and subscriptions revenue and **customer support revenue**."*

OpenText

SECTION 13: FOREIGN EXCHANGE

Many US-based SaaS and cloud companies generate revenues from customer contracts billed in foreign currencies such as Canadian dollars, British pounds, Euro, etc. The foreign currencies must be converted into the reporting currency (e.g. US dollars) for the purposes of calculating ARR (as well as all the other financials).

Finance organizations at SaaS and cloud companies must decide when the most appropriate time to perform the foreign exchange calculations. Some organizations report ARR in constant currency throughout each customer's lifecycle using the rate from when the sale was booked, when the contract became effective, or the when ARR recognition began (e.g. go-live). Other companies reset currencies for the entire customer base annually or quarterly.

EXAMPLES OF APPROACHES TO FX

"ARR is converted into USD at fixed rates that are held consistent over time and may vary from those used for Revenue or Deferred Revenue."

Hubspot

"In addition, we present ARR on a constant currency basis...Contracts included in the determination of ARR in the current period are converted into USD at the exchange rates in effect at the end of the comparative period, as opposed to the end of the period exchange rates in effect during the current period."

Yext

"We adjust the exchange rates used to calculate Total ARR on an annual basis at the beginning of each fiscal year."

Dropbox

SECTION 14: ARR POLICY CHANGES

From time-to-time, SaaS and cloud companies will elect to make policy changes related to ARR calculations. In some cases, the provider may choose to include additional revenue streams or customer segments that previously had not been considered recurring. In other cases, the SaaS or cloud company may adopt a more conservative position and exclude segments previously included in ARR. In either scenario, the finance organization will need to decide if the changes to the policy meet the materiality threshold for restating the ARR results presented in prior disclosures.

EXAMPLE - EXPANDING THE DEFINITION OF ARR

"We updated the definition of MRR as of the quarter ended September 30, 2021 to capture usage from subscriptions with committed contractual amounts and applied this change retrospectively."

Datadog

EXAMPLE – CHANGING THE CALCULATION APPROACH

"We updated our definition of ARR beginning in the first quarter of fiscal 2023 to include revenue from consumption-based cloud credits of Couchbase Capella products by annualizing the prior 90 days of actual consumption, assuming no increases or reductions in usage, and updated in the third quarter of fiscal 2023 to clarify that the 90-day actual consumption methodology is only used after a customer's initial year. The reason for these changes is to better reflect the ARR for Couchbase Capella products following the launch of Couchbase Capella in fiscal 2022. ARR for prior periods have not been adjusted to reflect these changes as they are not material to any period previously presented."

Couchbase

"Beginning in the quarter ended December 31, 2022, **we revised the methodology used to calculate Total ARR. In calculating Total ARR, we now only recognize the impact of any price increases upon renewal of the expiring maintenance contracts rather than upon enactment of such price increases.** *We believe this change in methodology better represents the current value of our maintenance contracts and better aligns our definition with comparable companies."*

Solarwinds

SECTION 15: ARR CALCULATION FORMULAS

We identified three primary methodologies used by publicly traded companies to calculate ARR.

	NAME	FORMULA	DESCRIPTION	USED BY
1	**Assigned Method**	**ARR** = MRR x 12 *with* MRR = Assigned value from contract (usually current monthly price)	ARR is assigned by a finance (or software app) at the time of contract signature. Typically involves judgment following review of contract details and company policy. Usually, the assigned value is the current, effective monthly price being paid.	SaaS providers with fixed fee subscription contracts
2	**Average Method**	**ARR** = Average Fees per Month x 12 *with* Average Fees per Month = TCV / Contract Length	ARR is calculated based upon average price. First, the Total Contract Value is computed. Second, the TCV is divided by the number of months in the contract to arrive at an Average Monthly Fee. The Average Monthly Fee is then annualized to arrive at an ARR.	Software providers with mix of cloud and on-premise subscriptions & perpetual licenses
3	**Actuals Method**	**ARR** = MRR for Past Month x 12 *with* MRR = Recurring revenue components of last month's total GAAP revenue	ARR is derived based upon actual GAAP revenue. First, an MRR is derived by identifying the recurring revenue as components of the total revenue as calculated using GAAP accounting rules. Second, the MRR is annualized to arrive at an ARR.	Cloud providers with usage and percentage pricing models. Hybrid pricing models that include usage, subscription, percentage

EXAMPLE COMPARISON OF THREE METHODS

To highlight the different outcomes from using the various formulas, we will calculate ARR for a fictitious SaaS provider with a combination of flat subscription fees, implementation services, and usage-based fees. To illustrate the difference results from each formula let us use a "step up" contract in which monthly subscription fees increase each year.

	One Time Fees	Monthly Subscription	Monthly Usage Fees
Year 1	$10,000	$1,000	$500
Year 2	$0	$2,000	$1,000
Year 3	$0	$4,000	$2,500

Using the contract details above, let's calculate the ARR using the three different approaches for comparison purposes for the mid-point of the contract – Month 18 in year 2. Assume that the finance team elects to exclude usage fees for method 1 and method 2. There are no one-time fees in year 2.

	Method 1: Assigned ARR	Method 2: Average ARR	Method 3: Adjusted ARR
Identify Inputs	Assigned MRR = $2,000	TCV = $1000 x 12 + $2,000 x 12 + $4,000 x 12 TCV = $84,000 Contract Term = 36 Months	GAAP Revenue = $3,000
Inter-mediate Steps		Average Monthly Fee (AMF) AMF = TCV/Contract Term AMF = $84,000/36 AMF = $2,333	
Compute ARR	ARR = Assigned MRR x 12 ARR = $2,000 x 12 **ARR = $24,000**	ARR = AFM x 12 ARR = $2,333 **ARR = $27,996**	ARR = GAAP Revenue x 12 ARR = $3,000 x 12 **ARR = $36,000**

FORMULA 1:
ASSIGNED ARR

The Assigned ARR approach is most common with companies that have fixed monthly fee subscription pricing. For example, a CRM application is $50/user per month for the base package and $100/user per month for the premium package. In the overwhelming majority of cases, the MRR is equal to the monthly subscription fees listed on the customer's contract. However, there are a few exceptions in which a judgment will need to be performed based upon company policy:

- **Subscriptions with Variable Fees** – For subscriptions with variable fees the exact price to use will need to be selected. For example, a step-up contract with fees of $100/mo in year 1, $200/mo in year 2, and $300/mo in year 3 will need special consideration. Options include:
    - Current effective price for the current phase of the contract lifecycle,
    - Average monthly fee across the contract term, or
    - Ending price from the last month of the contract (expected renewal).
- **Discounted Price** – Some organizations may prefer to use non-discounted pricing (vs the actual discounted pricing) in the ARR calculation. When non-discounted pricing is used, the assumption is that the customer will renew at the non-discounted price and that the monthly fee is more indicative of future recurring revenues.

After a new logo account is closed (or an existing account is changed), someone in the finance or revenue operations team reviews the customer's contract. S/he determines which of the fees being charged on the contract are recurring in nature based on the company's ARR policy. In most cases, the scope is limited to subscription contracts, but recurring fees could also include managed services and premium support. The recurring fees are summed up, and this total is the assigned MRR. The MRR is multiplied by 12 to arrive at the ARR.

CALCULATION

Step 1)
Assigned MRR = Sum of all fixed, predictable recurring fees

Step 2)
Assigned ARR = Assigned MRR x 12

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

We use the word “Assigned” because the MRR is being “assigning” to the account (versus calculated) based upon the contract review and company policy guidelines. A finance or accounting application could be configured to automatically assign MRR based upon a policy-based rules engine as well.

EXAMPLES OF ASSIGNED ARR

We believe the majority of public SaaS and cloud companies we reviewed are using the “Assigned ARR” approach. However, we did not find any examples of investor disclosures that outlined the specific details of the approach.

FORMULA 1:
DISCLOSURES - WITH ASSIGNED ARR

“We define Monthly Recurring Revenue, or MRR, as the amount of revenue that we expect to receive in the next monthly period for our existing paid subscriptions, assuming no changes to such subscriptions in the next month. We measure MRR as a point-in-time calculation measured as of a particular date. MRR is a **legal and contractual determination made by assessing the contractual terms of each paid subscription**. *MRR is not determined by reference to historical revenue, deferred revenue or any other U.S. GAAP financial measure over any period. It is forward looking and contractually derived as of the date of determination.*

We define Annualized Recurring Revenue, or ARR, for any date of determination, as the annualized value of existing paid subscriptions, which we calculate by taking the Monthly Recurring Revenue as of that date of determination and multiplying that Monthly Recurring Revenue by twelve.”

Klaviyo

FORMULA 2:
AVERAGE ARR

Average ARR is calculated by dividing all (or some) of the customer's Total Contract Value (TCV) by the number of months in the contract term to arrive at an average monthly fee. The average monthly fee then is multiplied by 12 to arrive at ARR.

POLICY ELECTIONS

There are a few variables that will need to decide upon before calculating ARR using the Adjusted Run Rate model:

Total Contract Value (TCV) Definition

The scope of fees to be included in TCV will need to be determined. TCV could include all contracted revenues or just the components that are deemed "recurring." Areas that warrant special consideration include

- Professional services
- Managed services
- Other one-time fees
- Variable usage fees
- Percentage transaction fees

Contract Length Unit of Measure

The contract length could be measured in years, quarters, months, or days. The most common variation on Average ARR is to perform the calculation based upon the average daily fee. The TCV is divided by the number of days in the contract and then multiplied by 365 to arrive at ARR.

CALCULATION

Step 1)
Total Contract Value = Sum of the relevant contractually obligated payments or line items on the sales order

Step 2)
Average Fees per Month = Total Contract Value / Contract Length

Step 3)
Average ARR = Average Fees per Month x 12

FORMULA 2:
DISCLOSURES - WITH AVERAGE ARR

"ARR is calculated based on the contract Monthly Recurring Revenue (MRR) multiplied by 12. MRR is calculated based on the ***accounting adjusted total contract value divided by the number of months of the agreement based on the start and end dates of each contracted line item.****"*

Informatica

"Annual recurring revenues is a key performance indicator defined as the annualized value of active term-based subscription license contracts and maintenance contracts related to perpetual licenses in effect at the end of that period. Subscription license contracts and maintenance for perpetual license contracts are annualized by ***dividing the total contract value by the number of days in the term*** *and multiplying the result by 365."*

Varonis

"ARR represents the annualized revenue run-rate of active cloud services, term license, and maintenance contracts at the end of a reporting period… ***Each contract is annualized by dividing the total contract value by the number of days in the contract term and then multiplying by 365****."*

Splunk

"The recurring amount of a contract is determined based upon the terms of a contract and is **calculated by dividing the amount of a contract by the term of the contract and then annualizing such amount***."*

Yext

"Both multi-year contracts and contracts with terms less than one year are **annualized by dividing the total committed contract value by the number of months in the subscription term and then multiplying by twelve***."*

Alteryx

ORDWAY

FORMULA 3:
ACTUALS

The Actuals approach is popular with SaaS and cloud providers that have usage-based pricing and other variable or less predictable fees. Most organizations using the Actuals approach do not refer to ARR as Annual Recurring Revenue but rather had adopted an alternative, similar acronym such as Annual Revenue Run Rate.

The "Actuals" model is the simplest of the three approaches. Actuals are computed by taking the actual GAAP recurring revenue for a prior period and annualizing it. For example, the past month's GAAP revenue is multiplying it by 12 to arrive at ARR.

CALCULATION

ARR = GAAP Revenue for Prior Period x Number of Periods per Year

POLICY ELECTIONS

There are several a few variables that will need to be decided upon before calculating ARR using the Adjusted Run Rate model:

- **Revenue Sources** - The GAAP Revenue for the Past Month in step could include all GAAP revenue or just a subset that is deemed to be "recurring" in nature. Specific areas that warrant consideration include
  - Fixed subscription fees
  - Professional services
  - Managed services
  - Other one-time fees
  - Variable usage fees
  - Percentage transaction fees.
- **Run-Rate Time Frame** – Options include the GAAP revenue from the
  - Last Month or 30 days
  - Last quarter or 90 days
  - Last year or 365 days

FORMULA 3:
DISCLOSURES - WITH ACTUALS APPROACH

"We calculate ARRR as the monthly revenue from subscription fees and revenue generated in conjunction with associated fees (fees taken or assessed in conjunction with commerce transactions) in ***the last month of the period multiplied by 12****."*

Squarespace

"ARR is calculated based on **multiplying the monthly revenue** *from all B2 Cloud Storage and Computer Backup arrangements…* **for the last month of a period by 12***."*

Backblaze

"Annualized recurring revenue is calculated at the end of a period by dividing the recurring revenue in the last month of such period by the number of days in the month and multiplying by 365."

Clearwater Analytics

"To measure Annualized Revenue at the end of a quarter, ***we take the sum of revenue for each customer in the quarter and multiply that amount by four****. For example, if we signed a new customer that generated $1,800 of revenue in a quarter, that customer would account for $7,200 of Annualized Revenue for that year."*

Cloudflare

FORMULAS 1-3 COMBINED
HYBRID MODELS

Some SaaS and cloud companies use a combination of the different formulas to arrive at ARR. With a goal of best representing the annualized recurring revenues they elect to use different formulas for different segments of the customer base. In some cases, different formulas might be used for different product lines, different deployment models (cloud vs on-premise), or different pricing strategies (subscription vs usage-based).

EXAMPLES OF DISCLOSURES WITH MIXED APPROACHES TO CALCULATING ARR

ACTUALS + AVERAGE – BASED UPON DEPLOYMENT MODEL

“Recurring revenues are generated from SaaS and PaaS subscriptions, as well as term licenses for software installed on the customer’s premises (“On-Prem”).

For the SaaS and PaaS components, **we calculate ARR by annualizing the actual recurring revenue recognized for the latest fiscal quarter**.

For the On-Prem components for which revenue recognition is not ratable across the license term, **we calculate ARR for each contract by dividing the total contract value (excluding professional services) as of the last day of the specified period by the number of days in the contract term and then multiplying by 365.**”

Kaltura

ASSIGNED + ACTUALS – BASED UPON PRICING MODEL

“Annual recurring revenue (“ARR”) represents the **annualized value of our committed customer subscription and SaaS contracts as of the end of the reporting period**, *assuming any contract that expires during the next 12 months is renewed on its existing terms and any applicable TFC rights are not exercised, except that, for* **consumption-based** *subscription and SaaS offerings,* **ARR represents the annualized quarterly revenue based on revenue recognized for the current reporting period.**”

VMWare

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

HYBRID - VARIATION BASED UPON CUSTOMER LIFECYCLE

And in other cases the method used to calculate ARR evolves during the customer's contract lifecycle with one approach being used in the initial year and a more precise approach being used in subsequent years based upon actual data.

EXAMPLES OF DISCLOSURES WITH EVOLVING APPROACH TO ARR

"We define ARR as of a given date as the annualized recurring revenue that we would contractually receive from our customers in the month ending 12 months following such date. Based on historical experience with customers, we assume all contracts will be automatically renewed at the same levels unless we receive notification of non-renewal and are no longer in negotiations prior to the measurement date.

ARR also includes revenue from consumption-based cloud credits of Couchbase Capella products. ARR for Couchbase Capella products **in a customer's initial year is calculated as described above**; **after a customer's initial year it is calculated by annualizing the prior 90 days of actual consumption**, *assuming no increases or reductions in usage."*

Couchbase

HYBRID - MULTIPLE VARIATIONS OF SAME FORMULA

In other cases, the same type of formula (e.g. actuals) might be used in two different ways (e.g. monthly fees annualized vs quarterly fees annualized) for two different product lines.

EXAMPLE OF DISCLOSURE WITH TWO VARIATIONS ON SAME FORMULA

"ARR is determined by taking the sum of (i) **twelve times the subscription component of MRR** *and (ii)* **four times the trailing-three-month cumulative payments component of MRR**."

Toast

SECTION 16: OPERATING METRICS IN OTHER INDUSTRIES

RETAIL COMPARABLE SALES

The SaaS industry is not the only sector in which companies adopt different approaches to calculating operating metrics. For example, one of the most widely tracked metrics in the retail industry is same-store sales or comparable sales. If you review the investor filings of the top 10 retailers, however, you will note that each one takes a different approach to calculating comparable sales.

Some retailers require a store to have an operating history of 12-month period, but others use 13 or 14 months. Some retailers include stores that were closed for physical changes such as renovations or relocations while others do not. The mix of products varies by retailers with different policies on whether to include revenues from gift cards, B2B sales, and merchandise sold by third parties (store-in-store).

	Operating History	Physical Store Changes	Revenue Streams
Best Buy	14 full months	Excluded if closed more than 14 days	Credit cards Gift cards Breakage Commercial sales
Costco	1 year or more	Included	
Dollar General	13 fiscal months	Included	
Home Depot	Greater than 52 weeks		
Macys			Commissions from third party merchandise
Target	13 months		

SECTION 17: CONCLUSION AND RECOMMENDATIONS

WHY IS ARR SO COMPLEX?

In the early stages of a SaaS or cloud provider's lifecycle, the calculation of ARR is relatively straightforward. Most seed round and Series A companies start with a single product and single pricing model. ARR is simply the monthly price customers are paying for the subscription component of the service multiplied by 12. However, as organizations grow from $1M to $100M and beyond the nature of ARR becomes more complex.

On their journey towards IPO, most companies will make acquisitions, launch new product offerings, and add new distribution channels. By the time a SaaS or cloud provider reaches $100M they may have over 100 different revenue-generating SKUs.

The various products likely contain a mix of diverse pricing models ranging from one-time fees and short-term professional services engagements to fixed fee subscriptions and usage-based pricing arrangements.

The customer contract portfolio grows more complex as well. A $100M SaaS or cloud provider likely may have thousands of smaller customers on monthly, pay-as-you-go plans and hundreds of larger accounts locked into longer-term, multi-year contracts.

Complexity Drivers for ARR:
- Subscription and usage-based pricing
- Monthly and annual plans
- On-premise and cloud deployments
- Self-managed and as-a-Service
- International/currencies
- Mergers and acquisitions

The diversity of revenue streams and customer contract arrangements that larger SaaS and cloud companies must account for is the root cause of variations in ARR.

At Ordway, we anticipate the challenge will only grow in the coming years. As the SaaS and cloud industry continues to use commercial innovation as a strategy for new customer acquisition and competitive differentiation, we expect to see even more divergence in the range of contract structures and pricing models adopted by providers.

Over the coming years, Ordway anticipates there will be more hybrid pricing models that use a combination of subscription, usage, and percentage pricing to create the optimal balance between the value a customer gains and the costs incurred by the SaaS and cloud provider to offer the service.

SaaS and cloud companies will generate revenue from a broader range of services beyond just the delivery of technology. Examples will include affiliate commissions from referring customers to business partners, advertising revenues to target end-users, and transaction fees generated from selling ancillary payments, insurance, and payroll services.

These increases in the diversity of pricing models and product lines adopted by SaaS and cloud providers will further exacerbate the challenge finance organizations face in arriving at an approach to reporting ARR to investors.

Future Complexity Drivers

- Usage-based pricing
- Embedded payments and finance

WHAT IS THE BEST APPROACH TO REPORTING ON ARR?

To report on ARR, each SaaS and cloud provider needs to define an ARR policy that specifies:

1) What is (and is not) included in “recurring revenue?”
2) How ARR reporting aligns with the customer contract lifecycle?
3) Which is the best methodology to calculate the results?

The ARR policy should be reviewed with senior management, independent auditors, and board directors to gain consensus. Once approved, it should be shared in investor communications to provide transparency as to how the business thinks about ARR, enabling shareholders and debtholders to perform comparative benchmarking against industry peers.

Contract Lifecycle

Specifically, the ARR policy should address questions about the customer contract lifecycle such as:

- **ARR Reporting Start** - When in the customer lifecycle do companies add ARR for new accounts to their reporting? Booking? Contract effective date? Implementation?
- **ARR Reporting End** - When in the customer lifecycle do companies remove ARR for churned accounts from their reporting? Notice of cancellation? Contract expiration date? Post-expiration renewal deadline?

Product Lines and Customer Segments

The policy should also specify which types of product lines and customer segments to include in “recurring revenue”:

- **Short Term Contracts** - Are month-to-month, pay-as-you-go accounts included in ARR? Are paid trials? Are short-term, temporary contracts?
- **Non-Recurring Fees** – Are one-time fees included? Other non-recurring fees?
- **Variable Fees** - Are variable fees generated from usage-based or percentage pricing models included in ARR?
- **People-Based Services** - Are professional services, customer support, and managed services included in ARR?
- **Excluded Products** - Are there selected SKUs at certain phases of the product lifecycle that should be excluded?

	• **Excluded Customer Segments** - Are there certain firmographics that should be excluded?
ARR Calculation Method	It should also specify how the organization calculates ARR: • **Assigned Model** – Most common approach and best for subscriptions that have fixed-fees throughout the contract lifecycle. • **Average Model** – Popular for SaaS and cloud providers with a mix of on-premise and cloud-based deployment. Also, popular for step-up subscriptions in which the pricing increases at predefined times during the contract. • **Actuals Model** – Popular with SaaS and cloud providers that primarily derive revenue from variable fee arrangements such as usage-based and percentage pricing.

APPENDIX A: ANNUAL CONTRACT VALUE

Seventeen of the public SaaS and cloud organizations we analyzed referenced ACV (Annual Contract Value) in their investor materials. Of the 17, 8 of them used ACV, as an alternative to ARR, but with a very similar purpose. The definitions provided for ACV are very similar in purpose and scope to ARR.

Some SaaS providers define ACV as "Annualized Contract Value" while others refer to it as "Annual Contract Value." The same acronym "ACV" is also used by several public companies to refer to "Average Contract Value." We have not included the Average Contract Value references in the count of 17.

ACV DEFINITIONS

"ACV for a customer represents the annualized subscription fees from the fully activated subscription contracts in effect for such customers at the end of the applicable period."

nCino

"ACV which is calculated based on the terms of that customer's contract and represents the total contracted annual subscription amount as of that period end."

Okta

"ACV" refers to annual contract value, or the total annualized value that a customer has agreed to pay for subscription services at any particular point in time under contract(s) that are or were enforceable at that point in time.

ZoomInfo

"The ACV of a customer's commitments is calculated based on the terms of that customer's subscriptions, and represents the total committed annual subscription amount as of the measurement date."

Elastic

In some cases, the actual ACV results are reported as a key business metric. In other cases, ACV is only referenced in the context of net retention and customer expansion metrics.

BOTH ARR AND ACV

Of the 17 SaaS and cloud companies that use ACV, 9 of them use both ACV and ARR for different purposes.

ACV COMPARED TO ARR

"We define ACV as the subscription revenue we would contractually expect to recognize from that customer over the next twelve months, assuming no increases or reductions in their subscriptions."

Zuora - ACV

"ARR represents the annualized recurring value at the time of initial booking or contract modification for all active subscription contracts at the end of a reporting period. **ARR excludes the value of non-recurring revenue such as professional services revenue as well as contracts with new customers with a term of less than one year**.*"*

Zuora - ARR

"**ACV is comprised of annualized recurring revenue plus contracted-not-billed revenue**, *which represents the estimated annual contracted revenue for new and existing client opportunities prior to revenue recognition. In order to arrive at total ACV, we include contracted-not-billed revenue, as it is contracted revenue that has not been recognized but that we expect to produce recognized revenue in the future."*

Clearwater Analytics - ACV

"Annualized recurring revenue is calculated at the end of a period by dividing the recurring revenue in the last month of such period by the number of days in the month and multiplying by 365."

Clearwater Analytics - ARR

EXCLUDED CUSTOMER SEGMENTS AND PRODUCT LINES

Although the sample size of 17 companies is relatively small, there is evidence that the same types of company-specific policies related to which customer segments, product lines, and revenue streams are included in ACV is consistent with the approaches taken towards ARR.

DIFFERENT POLICY APPROACHES TO ACV CALCULATIONS

"**Month-to-month subscriptions are not included** *in the calculation of ACV.*"

Elastic

"*ACV is calculated based on* ***the foreign exchange rate in effect at the time the contract was signed***."

ServiceNow

HYBRID FORMULAS

"*ACV represents the annualized value of our active contracts as of the measurement date.* **The contract's total value is divided by its duration in years to calculate ACV for subscription license and Pega Cloud contracts. Maintenance revenue for the quarter then ended is multiplied by four** *to calculate ACV for maintenance.*"

PegaSystems

APPENDIX B: INVESTOR FILINGS REVIEWED

Company	SEC Doc	Fiscal Year End	Company	SEC Doc	Fiscal Year End
2U	10-K	December 31, 2022	LivePerson	10-K	December 31, 2022
Adobe	10-K	December 2, 2022	Microsoft	10-K	June 30, 2022
Agora	20-F	December 31, 2022	Monday.com	20-F	December 31, 2022
Akamai	10-K	December 31, 2022	MongoDB	10-K	January 31, 2023
Alkami	10-K	December 31, 2022	nCino	10-K	January 31, 2023
Alphabet	10-K	December 31, 2022	New Relic	10-K	March 31, 2022
Alteryx	10-K	December 31, 2022	Okta	10-K	January 31, 2023
Amazon.com	10-K	December 31, 2022	Olo	10-K	December 31, 2022
Amplitude	10-K	December 31, 2022	ON24	10-K	December 31, 2022
Appfolio	10-K	December 31, 2022	OpenText	10-K	June 30, 2022
Appian	10-K	December 31, 2022	Oracle	10-K	May 31, 2022
Asana	10-K	January 31, 2023	PagerDuty	10-K	January 31, 2022
Atlassian	20-F	June 30, 2022	Palantir	10-K	December 31, 2022
Autodesk	10-K	January 31, 2023	Paycom	10-K	December 31, 2022
AvidExchange	10-K	December 31, 2022	Paycor	10-K	June 30, 2022
Bandwidth	10-K	December 31, 2022	Paylocity	10-K	June 30, 2022
BigCommerce	10-K	December 31, 2022	PayPal	10-K	December 31, 2022
Bill.com	10-K	June 30, 2022	PegaSystems	10-K	December 31, 2022
Blackline	10-K	December 31, 2022	Procore	10-K	December 31, 2022
Blend Labs	10-K	December 31, 2022	PROS Holdings	10-K	December 31, 2022
Box	10-K	January 31, 2023	PTC	10-K	September 30, 2022
Braze	10-K	January 31, 2023	Q2	10-K	December 31, 2022
C3.ai	10-K	April 30, 2022	Qualtrics	10-K	December 31, 2022
Checkpoint	20-F	Janary 31, 2022	Qualys	10-K	December 31, 2022
Cisco	10-K	July 30, 2022	Ringcentral	10-K	December 31, 2022
Clearwater Analytics	10-K	December 31, 2022	Riskified	20-F	December 31, 2022
Cloudflare	10-K	December 31, 2022	Salesforce	10-K	January 31, 2023
Confluent	10-K	December 31, 2022	Samsara	20-F	January 28, 2023
Consensus	10-K	December 31, 2022	SEMRush	10-K	December 31, 2022
Couchbase	10-K	Janary 31, 2023	SentinelOne	10-K	January 31, 2023
Crowdstrike	10-K	January 31, 2023	ServiceNow	10-K	December 31, 2022
Cvent	10-K	December 31, 2022	Shopify	40-F	December 31, 2022
DataDog	10-K	December 31, 2022	SimilarWeb	20-F	December 31, 2022
Definitive Healthcare	10-K	December 31, 2022	Smartsheet	10-K	January 31, 2023
Descartes		April 30, 2023	Snowflake	10-K	January 31, 2023
DigitalOcean	10-K	December 31, 2022	SolarWinds	10-K	December 31, 2022

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

Company	SEC Doc	Fiscal Year End	Company	SEC Doc	Fiscal Year End
Disco	10-K	December 31, 2022	Splunk	10-K	January 31, 2023
Docusign	10-K	January 31, 2023	Sprinklr	10-K	January 31, 2023
Domo	10-K	January 31, 2023	Sprout Social	10-K	December 31, 2022
DoubleVerify	10-K	December 31, 2022	SPS Commerce	10-K	December 31, 2022
Dropbox	10-K	January 31, 2023	Square/Block	10-K	December 31, 2022
Dynatrace	10-K	March 31, 2023	Squarespace	10-K	December 31, 2022
E2open	10-K	February 28, 2023	SS&C Tech	10-K	December 31, 2022
Elastic	10-K	April 30, 2022	Tenable	10-K	December 31, 2022
Enfusion	10-K	December 31, 2022	Toast	10-K	December 31, 2022
Engagesmart	10-K	December 31, 2022	Twilio	10-K	December 31, 2022
Everbridge	10-K	December 31, 2022	UiPath	10-K	January 31, 2023
EverCommerce	10-K	December 31, 2022	Varonis	10-K	December 31, 2022
Expensify	10-K	December 31, 2022	Veeva	10-K	January 31, 2023
F5 Networks	10-K	September 30, 2022	Vertex	10-K	December 31, 2022
Fastly	10-K	December 31, 2022	Vimeo	10-K	December 31, 2022
Five9	10-K	December 31, 2022	VMWare	10-K	January 28, 2023
Fortinet	10-K	December 31, 2022	VTEX	20-F	December 31, 2022
Freshworks	10-K	December 31, 2022	Walkme	20-F	December 31, 2022
Gitlab	10-K	January 31, 2023	Wix	20-F	December 31, 2022
Hashicorp	10-K	January 31, 2023	Workday	10-K	January 31, 2022
Hubspot	10-K	December 31, 2022	Workiva	10-K	December 31, 2022
Informatica	10-K	December 31, 2022	Yext	10-K	January 31, 2022
Instructure	10-K	December 31, 2022	Zeta Global	10-K	December 31, 2022
Intuit	10-K	July 31, 2022	ZipRecruiter	10-K	December 31, 2022
Jfrog	10-K	December 31, 2022	Zoom	10-K	January 31, 2023
Kaltura	10-K	December 31, 2022	ZoomInfo	10-K	December 31, 2022
Klaviyo	S-1A	September 18, 2023	Zscaler	10-K	July 31, 2022
Lightspeed	40-F	March 31, 2023	Zuora	10-K	January 31, 2023

REFERENCES

1. Wiz Hits $100M ARR in just 18 months. Source: Insight Partners - https://www.insightpartners.com/blog/wiz-hits-100m-arr-in-just-18-months/
2. Meritech 2021 Review SaaS IPOs - https://www.meritechcapital.com/blog/2021-review-select-saas-ipos
3. Meritech 2021 Review SaaS IPOs - https://www.meritechcapital.com/blog/2021-review-select-saas-ipos
4. Meritech 2021 Review SaaS IPOs - https://www.meritechcapital.com/blog/2021-review-select-saas-ipos
5. Meritech 2021 Review SaaS IPOs - https://www.meritechcapital.com/blog/2021-review-select-saas-ipos
6. Bessemer Venture Partners - State of the Cloud 2022. https://www.bvp.com/atlas/state-of-the-cloud-2022
7. About that Deel ARR Number - https://techcrunch.com/2022/04/12/about-that-deel-arr-number/
8. Bessemer Venture Partners - State of the Cloud 2022. https://www.bvp.com/atlas/state-of-the-cloud-2022