ANNUAL RECURRING REVENUE

HOW PUBLIC SAAS & CLOUD COMPANIES REPORT ON ARR

A RESEARCH STUDY BY

ORDWAY

EXECUTIVE SUMMARY

SCOPE OF RESEARCH STUDY

To arrive at an understanding of how publicly traded SaaS and cloud companies are calculating and reporting ARR, Ordway conducted an analysis of financial disclosures from companies listed on US capital markets. In total, we reviewed the latest annual reports (e.g. SEC 10-K, 20-F filings) of approximately 125 actively listed SaaS, cloud, and fintech providers on the NYSE and NASDAQ.

We started with the BVP Nasdaq Emerging Cloud Index, which contains 75 companies then added another 50 that we thought would provide us with a more diverse representation of ARR definitions in formulas. We wanted to include companies with fixed fee subscriptions as well as variable fees linked to consumption (usage-based pricing) and transaction dollar values (percentage pricing).

ONLY 28% OF PUBLIC AND SAAS COMPANIES REPORT ARR AS A KEY BUSINESS METRIC

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.

- **References to ARR** - 66 of the 125 (or 53%) 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.
- **Key Business Metric** - 35 of the 66 (or 53%) companies that referenced ARR 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.
- **Retention and Expansion** - Sometimes ARR is only referenced in the context of calculations of other key business metrics. For example, 18 companies only mentioned ARR as an important to the calculation of Net Revenue Retention. 15 SaaS and cloud providers tracked the number of accounts with greater than $100K or $1M ARR.

ARR DEFINITIONS VARY IN THE TYPES OF CONTRACTS AND REVENUE SOURCES INCLUDED

54 of the 66 (or 82%) of the companies that referenced ARR included a definition. The level of detail disclosed about ARR varied widely with some organizations sharing only a sentence and others publishing several paragraphs. Key learnings included:

- **Customer Segments** - Just because a customer may have a recurring revenue contract does not mean it is included in ARR calculations. Some organizations purposefully excluded consumer or small business segments.
- **Contract Lengths** – Some include monthly, pay-as-you-go plans in ARR calculations while others only include customers with formal contracts of 12 months in length or greater.
- **Contract Lifecycle** - Reporting does not map to the start and end dates of a customer contract. Many providers include new business that is booked, but not yet implemented. Others include anticipated late renewals.
- **Product Lifecycle** - Just because a product line generates recurring revenue does not mean it is included in ARR. Some excluded products that were late in the product lifecycle or sold via third party distribution channels.
- **Variable Pricing Models** - Many providers include usage-based pricing in ARR even though the revenue profile can vary month-to-month. Few providers with percentage pricing (based upon the dollar value of financial transactions) included these fees in ARR.
- **Deployment Model** - Products do not need to be run on a cloud platform to be included in ARR. Subscriptions for on-premise term licenses are generally included as are maintenance fees associated with perpetual licenses.
- **Professional Services** - Products do not need to be technology-centric to be included in ARR. A handful of organizations include professional services, managed services, and premium customer support programs in ARR.

THERE ARE THREE COMMON APPROACHES TO CALCULATING ARR

There are three primary approaches that are used to calculate ARR. All three models rely on calculating a monthly run rate first, which is then annualized. In the first model, MRR is “assigned” to each customer, typically based upon the current monthly price in the contract. In the second model, an “average” monthly fee is calculated by dividing the Total Contract Value (TCV) by the number of contract months. In the third model, a monthly run-rate is computed based upon the company’s GAAP accounting for the prior month. Once the MRR or run-rate is determined, it is multiplied by 12 to arrive at ARR. With each of the three approaches, there can be several variations in how the formula is applied.

TABLE OF CONTENTS

SECTION 1: THE IMPORTANCE OF ARR

1.1 ARR DRIVES VALUATION, COMPENSATION, AND MORE

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 which can be bought and sold on private marketplaces. The ARR from customer contracts can be traded much like equities, fixed income, derivatives, 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 upon ARR. Examples include Total ARR, ARR growth rate, ARR to FTE, ARR to net cash burn, and valuation as a multiple of ARR.

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.

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
$221K[4]

ARR Median Growth Rate at IPO
54%[5]

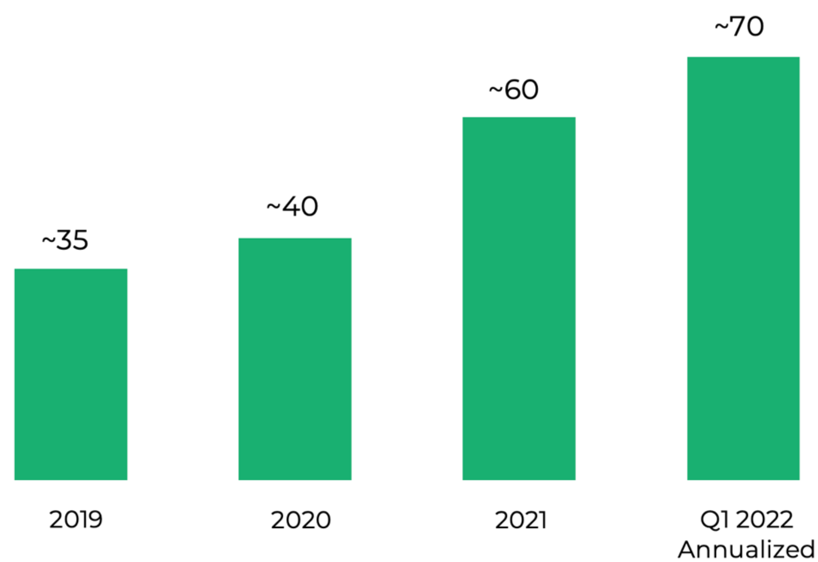
1.2 THE CENTAUR

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 more rare than unicorns.[6]

NEW CENTAURS BY YEAR

$100M in ARR



Source: BVP State of the Cloud 2022

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]

SECTION 2: ARR AT PUBLIC COMPANIES

In June of 2022, 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 40,000+ software firms based in the US that report on ARR. Unfortunately, more than 95% 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?
- How many use ARR to present customer expansion metrics?

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?

Definition and Formula for ARR

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

2.1 STUDY FIRMOGRAPHICS

To gain the 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 the latest SEC 10-K filings of approximately 125 actively listed SaaS, cloud, and fintech providers on the NYSE and NASDAQ.

We started with the BVP Nasdaq Emerging Cloud Index, which contains 75 companies then added another 50 that we thought would provide us with a more diverse representation of ARR definitions in formulas. We wanted to include companies with fixed fee subscriptions as well as variable fees linked to consumption (usage-based pricing) and transaction dollar values (percentage pricing).

The 50 companies we added included:

- **Software/Cloud Mega-Vendors** – Amazon.com, Alphabet, Microsoft, Oracle that include a mix of consumer and business products including hardware, professional services, software and cloud services.
- **Traditional (vs Emerging) Software Vendors** – Appian, Autodesk, Informatica, PegaSystems, Splunk that include a mix of revenue generated from on-premise software as well as SaaS.
- **Cloud Providers** – Akamai, Bandwidth, DigitalOcean, MongoDB, and HashiCorp that generate revenue from metering consumption and usage-based pricing models.
- **Enterprise Fintech and Retail** – Billtrust, AvidExchange, Expensify, Toast, and Lightspeed that derive fees from subscription fees as well as the GMV of payments processed.
- **Supply Chain Tech** – E2open, SPS Commerce that generate recurring revenue from cloud-based software.
- **MarTech** – Cvent, ON24, and SimilarWeb that generate recurring revenue from cloud-based software.

Our analysis was limited to the annual reports (e.g. 10-K or 20-F) of the 125 SaaS and cloud companies. We did not review earnings calls, investor presentations, quarterly reports, or other SEC filings for all of the companies. However, we did review a sampling of these additional documents and the small sample set indicates that a much broader set of companies track ARR than just those referencing it in annual reports.

LIST OF COMPANIES REVIEWED

2U*
Adobe*
Agora*
Akamai
Alphabet
Amazon.com
Amplitude*
Anaplan
AppFolio*
Appian
Asana*
Atlassian*
Autodesk
Avalara*
AvidExchange
Bandwidth
BigCommerce*
Bill.com*
Billtrust
Blackline*
Blend Labs*
Box*
C3.ai*
Checkpoint
Citrix
Clearwater Analytics
Cloudera
Cloudflare*
Confluent*
Consensus
Couchbase
Coupa*

Crowdstrike*
Cvent
Datadog*
Definitive Health*
Descartes
Digital Ocean
Disco*
Docusign*
Domo*
Dropbox
Dynatrace
E2open
Elastic*
Enfusion*
Everbridge*
Expensify
Fastly*
Five9
Fortinet
Freshworks*
Gitlab*
Hashicorp
Hubspot*
Informatica
Instructure
Intuit
JFrog*
Lightspeed
LivePerson
Microsoft
Monday.com*

MongoDB
nCino
New Relic*
Okta*
Olo
ON24
OpenText
Oracle
PagerDuty*
Palantir
Paycom*
Paycor
Paylocity*
PayPal
PegaSystems
Ping
Procore*
PROS Holdings
PTC
Q2*
Qualtrics*
Qualys
Ringcentral*
Riskified*
Sailpoint
Salesforce*
SEMRush
SentinelOne*
ServiceNow*
Shopify*
SimilarWeb

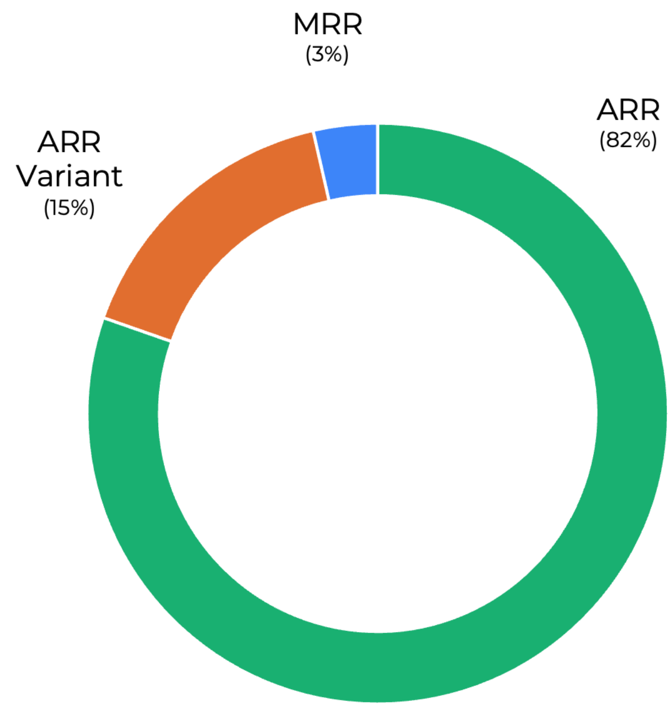
Smartsheet*
Snowflake*
SolarWinds
Splunk
Sprinklr*
Sprout Social*
SPS Commerce
Square
Squarespace
SS&C Technologies
Sumo Logic*
Tenable*
Toast
Twilio*
UiPath*
Varonis
Veeva
Vertex
Vimeo*
VMware
VTEX*
Walkme
Wix*
Workday*
Workiva*
Yext*
Zendesk*
Zoom*
ZoomInfo*
Zscaler*
Zuora*

**Components of BVP Nasdaq Emerging Cloud Comp Index as of August, 2022*

2.2 ARR REFERENCES IN ANNUAL REPORTS

Our analysis found that ARR is frequently referenced in investor communications by publicly traded companies. Of the 125 SaaS and cloud companies we analyzed, 66 (53%) referenced ARR or a variant in their 10-K filings. The most common references were:

- **ARR** – Most (55 of 66) of the companies used the terms ARR, Annual Recurring Revenue, or Annualized Recurring Revenue.
- **AR^n Variants** - Nine companies referenced a metric that is interchangeable with ARR such as Annualized Recurring Revenue Run Rate or Annualized Value of Recurring Subscriptions.
- **MRR** - Two companies referenced Monthly Recurring Revenue (MRR), but made no mention of annualized version.



SECTION 3: THE DEFINITION OF ARR

Although it hasn't appeared in any dictionaries yet, ARR is a part of 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 community. As a result, there is no official guidance 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.

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

Ping Identity

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

Q2

3.1 GAAP REVENUE VS ARR

Many of the 125 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 audited, GAAP financials which 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 THE BEST USE OF ARR

"ARR is an operational measure, does not reflect our revenue or gross profit determined in accordance with GAAP, and should be viewed independently of, and not combined with or substituted for, our revenue, gross profit, and other financial information determined in accordance with GAAP. Further, ARR is not a forecast of future revenue and investors should not place undue reliance on ARR as an indicator of our future or expected results."

Toast

"We believe that ARRR is a key indicator of our future revenue potential. However, ARRR should be viewed independently of revenue, and does not represent our GAAP revenue on an annualized basis, as it is an operating metric that can be impacted by subscription start and end dates and renewal rates. ARRR is not intended to be a replacement or forecast of revenue."

SquareSpace

3.2 HOW PUBLIC COMPANIES DEFINE ARR

Of the 66 companies that referenced ARR or a variant, most (81%) included a definition or explanation of how the ARR calculation is performed. There were 12 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

"ARR represents the total annualized contract value of active customer subscription contracts as of the measurement date."

Domo

"We define ARR as the annual recurring revenue of subscription agreements at a point in time based on the terms of customers' contracts."

Amplitude

3.3 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.”

EXAMPLES OF AR^N	
Adobe	Annualized Recurring Revenue
BigCommerce	Annual Revenue Run-Rate
Couchbase	Annualized Recurring Revenue
Hashicorp	Annualized Value of Recurring Subscriptions
MongoDB	Annualized Recurring Revenue
PTC	Annual Run Rate
Q2	Annualized Recurring Revenue
RingCentral	Annualized Exit Monthly Recurring Subscriptions
SentinelOne	Annualized Recurring Revenue
Splunk	Annualized Revenue Run-Rate
Squarespace	Annual Run Rate Revenue
Sumo Logic	Annualized Recurring Revenue Run Rate
Toast	Annualized Recurring Run Rate
UiPath	Annualized Renewal Run Rate

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

EXAMPLE DEFINITIONS OF ARR

ANNUALIZED RECURRING REVENUE RUN RATE

"We define ARR as the annualized recurring revenue run-rate from all customers that are under contract with us at the end of the period or with which we are negotiating a renewal contract."

Sumo Logic

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 RECURRING REVENUE

"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 excludes revenue from on-demand arrangements and services."

Couchbase

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 4: ARR RELEVANCE TO INVESTORS

Approximately 20 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

"Annualized Recurring Revenue (ARR) is the primary metric that management uses to ***monitor customer retention and growth and to make operational decisions*** *related to our business."*

Cloudera

"Given the renewable nature of our business, we view annual run-rate revenue as an important indicator of our ***current progress towards meeting our revenue targets and projected growth rate going forward****."*

Digital Ocean

"We believe that ARR is a key operating metric to measure our business because it is driven by our ability to ***acquire new subscription customers*** *and to maintain and* ***expand our relationship with existing subscription customers****."*

SentinelOne

"We believe ARR provides important information about our ***future revenue potential, our ability to acquire new clients and our ability to maintain and expand our relationship with existing clients****."*

Enfusion

"We believe that our Annualized Exit Monthly Recurring Subscriptions ("ARR") is a leading indicator of our anticipated subscriptions revenues. We believe that trends in revenue are important to understanding the ***overall health of our business****, and we use these trends in order to* ***formulate financial projections*** *and* ***make strategic business decisions****."*

RingCentral

4.1 ARR AS A "KEY BUSINESS METRIC"

Of the 66 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 a specific product-line ARR or customer segment ARR. For example, BigCommerce reported on ARR from enterprise accounts as well as total ARR. Informatica reports separate ARR line items for different product segments such as cloud, subscription, and maintenance.

EXAMPLES OF ARR SEGMENT REPORTING

*"To measure the effectiveness of our ability to execute against our growth strategy, **particularly within the mid-market and enterprise business segments**, we calculate **ARR attributable to Enterprise Accounts**. We define Enterprise Accounts as accounts with at least one unique Enterprise plan subscription or an enterprise level feed management subscription (collectively "Enterprise Accounts"). These accounts may have more than one Enterprise plan or a combination of Enterprise plans and Essentials plans."*

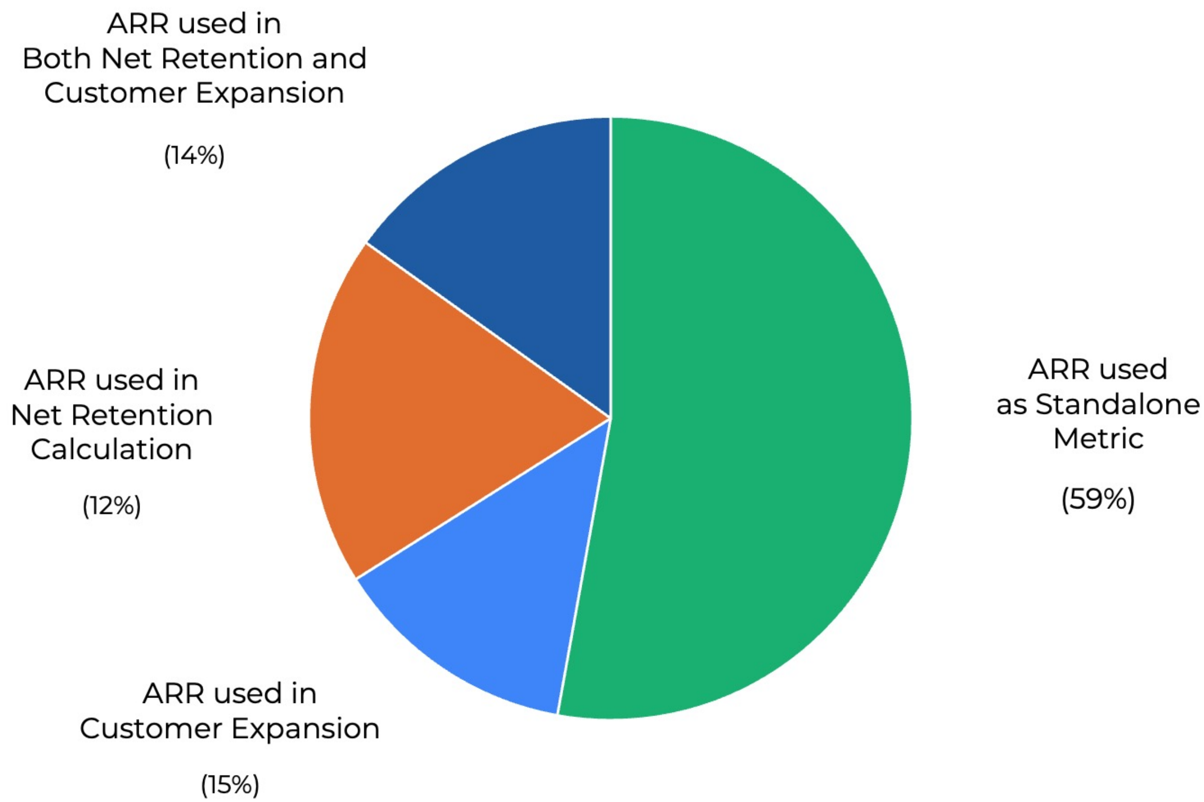
BigCommerce

*"**Maintenance Annual Recurring Revenue** represents the portion of ARR only attributable to our maintenance contracts. 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

4.2 ARR USE IN OTHER KEY BUSINESS METRICS

About 40% 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 5: CUSTOMER SEGMENTS INCLUDED IN 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.

5.1 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

"*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

5.2 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.

EXAMPLES OF EXCLUDED CUSTOMER SEGMENTS WITH SHORT-TERM CONTRACTS

"*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 that were applied to certain accounts due to the COVID-19 pandemic, from our annual recurring revenue.*"

Zendesk

"*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

5.3 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 One	Microsoft Azure	Digital Ocean
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 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

*"We include both **monthly recurring paid subscriptions, which renew automatically unless cancelled**, as well as the annual recurring paid subscriptions…"*

SEMRush

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

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

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 define ARR as 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

*"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 to consider is those that renew after the contract expiration date. In some SaaS businesses these types of 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

"ARR at the end of a particular period includes the annualized dollar value of subscriptions for ***which the term has not ended, and subscriptions for which we are negotiating a subscription renewal****."*

Procore

SECTION 7: 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, but is now becoming popular in vertical SaaS and business applications. 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 calculating ARR.

7.1 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
Network	Compute	Per hour & config (CPU, memory, storage)	AWS
Cloud	Data Transfer	Per GB transferred & per request	Fastly, Akamai
Monitoring	API & Browser Tests	Per 1k test runs	DataDog
Content	Audio Transcription	Per media minute	Rev.com
AI/ML	Document Extraction	Per page scanned, field extracted	AWS
Identity	Fraud Detection	Per identity verified	
Marketing	Lead Generation	Per database contact	Hubspot
Legal	E-Discovery	Per GB of data stored/analyzed	Disco
HR	Background Check	Per employee checked	Checkr

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

Calculating "recurring revenue" for usage-based pricing models is challenging, because the amount of revenue generated varies month-to-month based upon actual consumption. ARR calculations for traditional SaaS subscription models are more straightforward as the monthly price is negotiated during the sales process and locked in for the duration of the contract. There is some level of predictability from customers with monthly minimum contract structures, however many of these arrangements also include overage fees that provide variability as well.

Most providers that offer usage-based pricing report on the annualized run rate of their revenues. 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

"We define ARR as the annualized recurring revenue run-rate from all customers that are under contract with us at the end of the period or with which we are negotiating a renewal contract...For certain ***customers whose revenue may fluctuate from month to month based upon their specific contractual arrangements, we calculate ARR using the annualized monthly recurring revenue, or MRR, run-rate (MRR multiplied by 12).*** *"*

Sumo Logic

"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

"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. For all other customers of our self-serve products, ***we calculate annualized MRR by annualizing the prior 30 days of their actual consumption of such products, assuming no increases or reductions in usage.*** *"*

MongoDB

7.2 HYBRID USAGE-BASED AND SUBSCRIPTION PRICING

SaaS and cloud providers do not have to choose between usage-based pricing and the subscription model. Some 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

"*We calculate ARR as the annualized value of all recurring revenue recognized in the last month of the reporting period, with the exception of* ***variable revenue in excess of contracted amounts*** *for which we instead take the average monthly run rate of the trailing three months within that reporting period.*"

Q2

7.3 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. However, the SaaS and cloud providers do not need to become payment processors to adopt the percentage pricing model. Some take a percentage commission regardless of payment channel.

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.

Most providers that offer percentage pricing report on the annualized run rate of their revenues. The time period for the run-rate varies. Some use a subset of the prior month's GAAP revenue as the run-rate 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

"We calculate annual revenue run-rate ("ARR") at the end of each month as the sum of: (1) contractual monthly recurring revenue at the end of the period, which includes platform subscription fees, invoiced growth adjustments, product feed management subscription fees, recurring professional services revenue, and other recurring revenue, multiplied by twelve to prospectively annualize recurring revenue, and (2) the sum of the ***trailing twelve-month*** *non-recurring and variable revenue, which includes one-time partner integrations, one-time fees,* ***payments revenue share****, and any other revenue that is non-recurring and variable."*

BigCommerce

SECTION 8: NON-CORE PRODUCTS

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.

Other examples of non-core products that might be excluded from ARR calculations include:

- **B2C Software** - Consumer software applications (when the majority of revenue is derived from B2B)
- **Resold Products** - Third party products sold through in-house sales organization

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 10-K

"*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 10-K

"*Recurring Revenue: Consists of the revenue for the period from our traditional maintenance plans and revenue from our subscription plan offerings.* ***It excludes subscription revenue related to consumer product offerings, select Creative Finishing product offerings, and third-party products***."

Autodesk 10-K

SECTION 9: DEPLOYMENT MODELS AND ARR

With a few notable exceptions, most software providers founded in the past 10-15 years are cloud-native. However, many of the larger, publicly traded software firms were born in the 1980s or 1990s when software was licensed on a perpetual basis and it was deployed on-premise in the customer's data center.

Traditional software firms have adopted SaaS 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.

TRANSITIONING TO SAAS

Checkpoint
Informatica
OpenText
Oracle
Pega Systems
PTC
Sailpoint
Splunk

To ease the transition, some software providers have introduced term licenses, which are subscriptions that allow the customer to run the application on-premise in their own data center. The three types of revenue are outlined in the table below.

PRODUCT	DESCRIPTION
Perpetual License	One-time fees paid by the customer in exchange for a perpetual right to use the software application. As the customer expands adoption of the software additional licenses may need to be purchased and fees paid.
Maintenance Fee	Annual maintenance revenue fees are required to get upgrades and technical support from the vendor. These are both recurring and predictable. The fees are typically paid upfront on an annual basis much like a SaaS subscription.
Term License	Subscription contract that grants the customer rights to run the software on-premise for the duration of the contract. Customers must continue to pay the annual subscription fees to continue using the software.

ARR FOR ON-PREMISE SOFTWARE

The various deployment and licensing models create challenges for traditional software firms that want to report ARR. 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. Term licenses deployed on premise are subscriptions that produce the same types of recurring revenue fees as SaaS and cloud-based subscriptions.

	TRADITIONAL MODEL	HYBRID MODEL	SAAS/CLOUD MODEL
Software	Perpetual License	Term License or Subscription	Subscription
Technical Support & Upgrades	Separate Annual Maintenance Contract	Included with Subscription	Included with Subscription

Should the revenue from maintenance contracts associated with perpetual licenses be included in ARR calculations? Should term licenses and on-premise subscriptions be components of ARR? Again, the answer depends upon the ARR policy of the company. However, there are numerous examples of both maintenance contracts and term licenses for on-premise software being reported as ARR in investor filings.

EXAMPLES OF MAINTENANCE AND ON-PREMISE SUBSCRIPTIONS 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 value of the active portion of SaaS, ***term-based license, maintenance and support contracts*** *and other subscription services at the end of the reporting period."*

Sailpoint

SECTION 10: PEOPLE-BASED SERVICES AND ARR

Some SaaS and cloud providers with more complex products have professional services organizations that help customers implement, 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.

10.1 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

"We calculate annual revenue run-rate ("ARR") at the end of each month as the sum of: (1) contractual monthly recurring revenue at the end of the period, which includes platform subscription fees, invoiced growth adjustments, product feed management subscription fees, ***recurring professional services revenue****, and other recurring revenue, multiplied by twelve to prospectively annualize recurring revenue, and (2) the sum of the trailing twelve-month non-recurring and variable revenue, which includes one-time partner integrations, one-time fees, payments revenue share, and any other revenue that is non-recurring and variable."*

BigCommerce

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

EXAMPLES EXCLUDING PROFESSIONAL SERVICES IN ARR

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

ON24

*“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

10.2 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 11: 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. 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 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. Let's assume that usage fees are consistent each month for simplicity.

	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. The results are outlined in the table below.

	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 the 1) current effective price for the current phase of the contract lifecycle, 2) the average monthly fee across the contract term, or 3) the 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 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 upon 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 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 several 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 1) professional services, 2) managed services, 3) other one-time fees, 4) variable usage fees. And 5) percentage transaction fees.
- **Contract Length Unit of Measure** - The contract length could be measured in 1) years, 2) quarters, 3) months, or 4) 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

*"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

"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

"We calculate Total ARR by dividing the ***active contract value by the number of days*** *in the active portion of the overall contract term and then multiplying by 365."*

Sailpoint

FORMULA 3:
ACTUALS

The Actuals approach is popular with SaaS and cloud providers that have usage-based pricing and other variable, unpredictable 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 is computed by taking the actual GAAP recurring revenue for the past month and multiplying it by 12. It is effectively, the annualized revenue run rate of the past month's fees. A common variation is to use the GAAP recurring revenue for the quarter and multiply it by 4.

CALCULATION

ARR = GAAP Revenue for Past Month x 12

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 1) fixed subscription fees, 2) professional services, 3) managed services, 4) other one-time fees, 5) variable usage fees and 6) percentage transaction fees.
- **Run-Rate Time Frame** – Options include the GAAP revenue from the 1) last month, 2) last 30 days, 3) last quarter, or 4) last 90 days, 5) last year, or 6) last 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 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

"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....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

SECTION 12: CONCLUSION AND RECOMMENDATIONS

WHY ARE THERE VARIATIONS TO ARR?

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.

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.

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 and 3) the methodology used to calculate the result. 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.

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?

The policy should also specify which types of product lines and customer contracts 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?

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.

REFERENCES

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2. Meritech 2021 Review SaaS IPOs - https://www.saasbrief.com/edition/weekly-forecasting-saas-2022-01-08
3. Meritech 2021 Review SaaS IPOs https://www.saasbrief.com/edition/weekly-forecasting-saas-2022-01-08
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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

INVESTOR FILINGS REVIEWED

Company	SEC Doc	Fiscal Year End	Company	SEC Doc	Fiscal Year End
2U	10-K	December 31, 2021	MongoDB	10-K	January 31, 2022
Adobe	10-K	December 3, 2021	nCino	10-K	January 31, 2022
Agora	20-F	December 31, 2021	New Relic	10-K	March 31, 2022
Akamai	10-K	December 31, 2021	Okta	10-K	January 31, 2022
Alphabet	10-K	December 31, 2021	Olo	10-K	December 31, 2021
Amazon.com	10-K	December 31, 2021	ON24	10-K	December 31, 2021
Amplitude	10-K	December 31, 2021	OpenText	10-K	June 30, 2022
Anaplan	10-K	January 31, 2022	Oracle	10-K	May 31, 2022
Appfolio	10-K	December 31, 2021	PagerDuty	10-K	January 31, 2022
Appian	10-K	December 31, 2021	Palantir	10-K	December 31, 2021
Asana	10-K	January 31, 2022	Paycom	10-K	December 31, 2021
Atlassian	20-F	June 30, 2021	Paycor	10-K	June 30, 2022
Autodesk	10-K	January 31, 2022	Paylocity	10-K	June 30, 2022
Avalara	10-K	December 31, 2021	PayPal	10-K	December 31, 2021
AvidExchange	10-K	December 31, 2021	PegaSystems	10-K	December 31, 2021
Bandwidth	10-K	December 31, 2021	Ping	10-K	December 31, 2021
BigCommerce	10-K	December 31, 2021	Procore	10-K	December 31, 2021
Bill.com	10-K	June 30, 2021	PROS Holdings	10-K	December 31, 2021
Billtrust	10-K	December 31, 2021	PTC	10-K	September 30, 2021
Blackline	10-K	December 31, 2021	Q2	10-K	December 31, 2021
Blend Labs	10-K	December 31, 2021	Qualtrics	10-K	December 31, 2021
Box	10-K	January 31, 2022	Qualys	10-K	December 31, 2021
C3.ai	10-K	April 30, 2022	RingCentral	10-K	December 31, 2021
Citrix	10-K	December 31, 2021	Riskified	20-F	December 31, 2021
Checkpoint	20-F	Janary 31, 2021	Sailpoint	10-K	December 31, 2021
Clearwater Analytics	10-K	December 31, 2021	Salesforce	10-K	January 31, 2022
Cloudera	10-K	January 31, 2021	SEMRush	10-K	December 31, 2021
Cloudflare	10-K	December 31, 2021	SentinelOne	10-K	January 31, 2022
Confluent	10-K	December 31, 2021	ServiceNow	10-K	December 31, 2021
Consensus	10-K	December 31, 2021	Shopify	40-F	December 31, 2021
Couchbase	10-K	Janary 31, 2022	SimilarWeb	20-F	December 31, 2021
Coupa	10-K	January 31, 2022	Smartsheet	10-K	January 31, 2022
Crowdstrike	10-K	January 31, 2022	Snowflake	10-K	January 31, 2022
Cvent	10-K	December 31, 2021	SolarWinds	10-K	December 31, 2021
DataDog	10-K	December 31, 2021	Splunk	10-K	January 31, 2022
Definitive Healthcare	10-K	December 31, 2021	Sprinklr	10-K	January 31, 2022

HOW PUBLIC SAAS COMPANIES REPORT ON ARR

Company	SEC Doc	Fiscal Year End	Company	SEC Doc	Fiscal Year End
Descartes		January 31, 2020	Sprout Social	10-K	December 31, 2021
Digital Ocean	10-K	December 31, 2021	SPS Commerce	10-K	December 31, 2021
Disco	10-K	December 31, 2021	Square/Block	10-K	December 31, 2021
Docusign	10-K	January 31, 2022	Squarespace	10-K	December 31, 2021
Domo	10-K	January 31, 2022	SS&C Tech	10-K	December 31, 2021
Dropbox	10-K	January 31, 2021	Sumo Logic	10-K	January 31, 2021
Dynatrace	10-K	March 31, 2022	Tenable	10-K	December 31, 2021
e2open	10-K	February 28, 2022	Toast	10-K	December 31, 2021
Elastic	10-K	April 30, 2022	Twilio	10-K	December 31, 2020
Enfusion	10-K	December 31, 2021	UiPath	10-K	January 31, 2022
Everbridge	10-K	December 31, 2021	Varonis	10-K	December 31, 2021
Expensify	10-K	December 31, 2021	Veeva	10-K	January 31, 2022
Fastly	10-K	December 31, 2020	Vertex	10-K	December 31, 2021
Five9	10-K	December 31, 2021	Vimeo	10-K	December 31, 2021
Fortinet	10-K	December 31, 2021	VMWare	10-K	January 28, 2022
Freshworks	10-K	December 31, 2021	VTEX	20-F	December 31, 2021
Gitlab	10-K	January 31, 2022	Walkme	20-F	December 31, 2021
Hashicorp	10-K	January 31, 2022	Wix	20-F	1-Apr-22
Hubspot	10-K	December 31, 2021	Workday	10-K	January 31, 2022
Informatica	10-K	December 31, 2021	Workiva	10-K	December 31, 2021
Instructure	10-K	December 31, 2021	Yext	10-K	January 31, 2022
Intuit	10-K	July 31, 2021	Zendesk	10-K	December 31, 2021
Jfrog	10-K	December 31, 2021	Zoom	10-K	January 31, 2022
Lightspeed	40-F	March 31, 2022	ZoomInfo	10-K	December 31, 2021
LivePerson	10-K	December 31, 2021	Zscaler	10-K	July 31, 2021
Microsoft	10-K	June 30, 2022	Zuora	10-K	January 31, 2022
Monday.com	20-F	December 31, 2021			

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