SaaS Metrics Playbook 2025

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Introduction

Metrics only matter if they are **clear, consistent, and tied to real decisions**. To meet that standard, every metric must pass the **DEFT test**:

Decision: What decision does the metric inform, who is accountable for acting on it, and what population is being measured (account, user, order, session, event)?

Edge cases: How are exceptions handled (free trials, refunds, bots, internal traffic) so they are treated the same every time?

Formula: How is the metric defined first in plain language, then expressed in SQL? What are the numerator and denominator?

Time window: Over what period is the metric measured (weekly, monthly, trailing 12 months, or rolling 28 days)?

If a metric cannot be expressed this way, it is not ready. If it can, it is **decision-ready**: easy to explain, hard to misinterpret, and consistent over time.

This playbook defines the **SaaS metrics that matter in 2025**, scoped to mature startups and mid-sized companies. Performance is judged on three forces: **efficient growth, durable retention, and product usage as the bridge between the two**.

Scope

The playbook is structured around six areas, each looking at the business from a different angle:

- **Financial performance:** the money lens.

  Tracks recurring revenue, spending efficiency, and **unit economics** (the cost and return of serving one customer).

  Answers: **Is the business model financially sound?**

- **Go-to-market effectiveness:** *the growth engine lens.*

  It looks at how the company turns potential demand into revenue. This includes **marketing** (generating awareness and attracting potential buyers, often called leads), **sales** (moving leads through the sales **pipeline**, the step-by-step process from initial contact to closed deal), **pricing and packaging** (capturing value in the right way), and **product-led growth (PLG)** (where product usage surfaces qualified opportunities - prospects who have shown through their behavior that they are ready for a sales conversation).

  Answers: **How well do we turn interest into paying customers?**

- **Product engagement:** *the usage lens.*

  Measures how customers activate, adopt key features, and build habits.

  Answers: **Are people using the product in a way that creates lasting value?**

- **Customer success:** *the retention lens.*

  Focuses on onboarding, customer health scores, and expansion. Includes **net revenue retention (NRR)**, the percent of recurring revenue kept and grown from existing customers.

  Answers: **Do customers stay, succeed, and spend more over time?**

- **Platform economics:** *the infrastructure lens.*

Looks at reliability (uptime, latency), cost efficiency (often managed with **FinOps**, or cloud financial operations), and compliance.

Answers: **Can the platform scale reliably without costs spiraling out of control?**

- **Executive scorecards:** *the leadership lens.*

  Rolls all metrics into a top-level view for boards and executives, highlighting leading indicators, risks, and experiments.

  Answers: **What story does the company tell at the highest level?**

Standards

Once defined, metrics do not drift. **Consistency makes them credible** and keeps teams aligned. This playbook enforces three standards:

1. Growth is decomposed into movements

Revenue change is never shown as a single net number. It is always broken into four clear categories:

New - recurring revenue from first-time customers.

Expansion / Contraction - changes in recurring revenue from existing customers.

Churn - recurring revenue lost when customers cancel completely.

Reactivation - recurring revenue regained from previously churned customers.

This decomposition makes growth drivers explicit: winning new customers (“acquiring logos”), expanding existing accounts, shrinking existing accounts, or hiding churn behind growth elsewhere.

2. Retention is segmented

Retention is never shown as a single blended rate. It is always segmented in two ways:

By ACV (Annual Contract Value): separates small, mid, and enterprise accounts. Different deal sizes carry different behaviors (small accounts often churn quickly), while enterprise accounts usually retain longer but expand more slowly. Without this split, averages can mislead.

By cohort (signup period): groups customers by the quarter or year they started and tracks how much recurring revenue survives after 12, 24, or 36 months. Cohorts reveal durability over time and make it clear whether expansion offsets churn or whether early revenue fades away.

Segmentation ensures retention reflects **who your customers are and when they joined**, not just an overall average. It turns retention from a vanity percentage into a signal you can trust.

3. Efficiency reconciles to GAAP

To run a SaaS business, you need two different revenue lenses.

1. Operating lens (ARR and MRR).

- **ARR (Annual Recurring Revenue):** the annualized value of subscriptions.
- **MRR (Monthly Recurring Revenue):** the monthly equivalent.

  These metrics show the "run rate" of recurring revenue. They make it easy to see growth drivers (new, expansion, churn) and to calculate unit economics like payback and efficiency.

  But: ARR and MRR are *non-GAAP*. They are management-defined metrics, not governed by accounting standards.

2. Financial lens (GAAP revenue).

- **GAAP (Generally Accepted Accounting Principles):** the accounting rules companies must follow when reporting to investors.
- Under GAAP, companies track **recognized revenue** (earned as service is delivered), **billings** (what was invoiced), and **deferred revenue** (what was billed but not yet recognized).

  This is the audited view used by CFOs, boards, and investors.

These two views must line up. If ARR/MRR tell one story and GAAP revenue tells another, credibility breaks down. Boards and CFOs will discount any operating metric that can't be reconciled to the financial statements.

The standard in this playbook: every ARR and MRR figure must be reconcilable to GAAP revenue. That requires three things:

1. **Bridges.** Show clearly how ARR and MRR connect to recognized revenue.

2. **Documentation.** Spell out differences such as multi-year contracts, revenue deferrals, credits, or usage volatility.

3. **Monthly tie-outs.** Prove that ending balances in ARR and MRR reconcile to finance outputs like deferred revenue and billings.

When done correctly, efficiency metrics are not only useful for operators, they are **credible in board discussions** and **defensible in financial reviews**.

Core Finance Concepts in SaaS

Revenue is the income a company recognizes in its financial statements for goods or services delivered in a given period. In SaaS, this means only the portion of subscription fees that can legitimately be recognized each month as service is provided, not the full amount billed upfront.

Deferred revenue is cash that has already been collected but not yet earned. If a customer pays for a year in advance, the portion that covers future months sits on the balance sheet as a liability. The company has the cash in hand, but it is still **on the hook** to deliver those future months of service. Revenue is then recognized gradually as the obligation is fulfilled.

Billings represent the total amount invoiced to customers in a period, regardless of whether it has been recognized as revenue or deferred to future months. Billings are a cash-oriented view that show the pace of invoicing activity.

Reconciliation Tools

Bridges are short reconciliations that show how one SaaS metric connects to another. They are often presented as waterfall-style tables that break out the components of change. A bridge explains what part of revenue is active today versus what is already signed for the future.

ARR → CARR Bridge (example):

Ending ARR (Dec 31): $12.0m

- Signed contracts not yet active: +$1.2m

- Scheduled price step-ups: +$0.3m
  – Scheduled downgrades (future): –$0.1m
  CARR: $13.4m

This makes it clear that today's ARR is $12m, but once signed contracts and scheduled ramps are factored in, contracted ARR is $13.4m. It's a simple way to show how much future growth is already locked in.

Monthly tie-outs serve a similar purpose, but instead of reconciling one SaaS metric to another, they reconcile SaaS operating metrics (ARR and MRR) to Finance's audited outputs such as deferred revenue, billings, and recognized revenue. For example, a tie-out might show that $12.0m of ARR at year-end equals $7.5m sitting in deferred revenue, $1.0m recognized in the current month, and $3.5m of contracted but unbilled backlog. These schedules prove that the operating metrics are fully grounded in Finance's numbers and build credibility with auditors, boards, and investors.

Part I. Operating model and metric anatomy

1. How to define any metric

Every metric in this playbook follows the **DEFT framework**: **Decision, Edge cases, Formula, Time window.**

Decision - Start with the decision, not the math. Ask:

- What decision does this metric support?
- Who is accountable for acting on it?
- What population is being measured (account, user, session, order, or event)?
- What levers could realistically move it?

If you cannot answer these questions, the metric is not meaningful.

Time window and grain - Define the period and level of detail for measurement.

- **Grain** = the lowest unit of analysis (account, user, order).
- **Window** = how far back you look (weekly, monthly, trailing 12 months, rolling 28 days).

Formula - Write the definition first in plain English, then state the exact formula. Always make numerator and denominator explicit.

Example definition: “Active users are people who log in at least once in the last 28 days.”

Example formula: “Number of users with ≥1 login in 28 days / total registered users.”

Only after this should you sketch SQL.

Edge cases and guardrails - Spell out how exceptions are handled every time (trials, refunds, bots, resellers, parent/child accounts).

Then add guardrails to prevent silent errors:

- Not-null checks for IDs.
- Referential integrity checks for joins.
- Alerts on sudden denominator changes.

Slices - Define the default breakouts for analysis: plan tier, region, device, customer segment, traffic source, or channel.

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2. Company context

Metrics only make sense inside the business model. The same metric can mean very different things depending on how a company sells, charges, and delivers its product. To keep definitions grounded, apply these **context lenses** when defining any metric.

Go-to-market motion

How a company acquires customers determines which metrics matter most.

- **Product-led growth (PLG)**
  - Customers sign up directly, often starting with a free plan or trial.
  - Key metrics:
    - **Activation** (how quickly new users reach first value).
    - **PQL (Product-Qualified Lead):** an individual user whose product activity signals buying intent.
    - **PQA (Product-Qualified Account):** an entire account (a company in B2B SaaS) where usage signals suggest readiness for sales.
    - **Free-to-paid conversion:** the rate at which free users upgrade to paid.
- **Sales-led**
  - Customers are acquired through sales reps who guide deals from start to finish.
  - Key metrics:
    - **Pipeline health:** quality and volume of deals in progress.
    - **Win rate:** percentage of opportunities that close successfully.
    - **Sales cycle length:** average time from first contact to closed deal.

        - **Implementation speed:** how fast customers go live after signing.

- **Hybrid**

    - Combines both motions. Product usage generates **lead scores** (numerical signals of buying intent), and sales steps in at the right time.

    - Metrics must capture both adoption (product usage) and execution (sales outcomes).

ACV band (Annual Contract Value)

ACV is the amount of recurring revenue per customer contract, expressed annually. Segmenting metrics by ACV avoids misleading averages.

- **Low-ACV products** ($1K–$5K per year):

    - Require fast **CAC payback** (Customer Acquisition Cost payback = how many months of gross profit are needed to recover sales and marketing spend).

    - Need easy, low-friction onboarding.

- **High-ACV products** ($50K–$200K+ per year):

    - Can sustain longer sales cycles.

    - Support deeper, more resource-intensive onboarding.

Because ACV shapes both customer expectations and company economics, all core performance metrics - CAC payback, win rate, and Net Revenue Retention (NRR = percent of recurring revenue kept and expanded from existing customers) - should always be segmented by ACV tier.

Pricing model

How a company charges customers changes how metrics are defined.

- **Seat-based (per user):** expansion comes from more seats added.

- **Usage-based (per unit of consumption):** expansion comes from increased usage (e.g., API calls, storage volume). Metrics like activation must reflect usage thresholds.

- **Tiered:** bundles of features or usage limits sold at different price points.
- **Outcome-based:** pricing tied directly to results delivered (e.g., cost savings achieved).

Example: In a usage-based API, expansion is tracked by higher request volume. In a seat-based workflow tool, expansion is tracked by the number of new team members added.

Product type

Different products emphasize different success signals.

- **Workflow tools:** measure collaboration depth (e.g., weekly active accounts, number of teammates invited).
- **Analytics or platforms:** highlight **time to first value** (how quickly users generate their first report or dashboard) and **data freshness**.
- **Infrastructure / APIs:** reliability is part of the value. Guardrail metrics such as **p95 latency** (95th percentile of response times), **error rate**, and uptime sit alongside revenue.

Implementation complexity

How customers start using the product affects where milestones are tracked.

- **Self-serve:** milestones like activation and value realization are captured directly in product usage events.
- **Enterprise:** milestones are project-based (deployments, integrations, onboarding tasks) and must be tracked explicitly in systems outside the product.

Applying context to metric definitions

Always annotate the metric with the relevant context.

- **Usage-based API example:**

  Activation = first successful “200 OK” response plus N calls within 7 days.

- **Seat-based workflow tool example:**

Activation = first project created plus three collaborators invited within 14 days.

The **structure** of the definition is the same, but the **levers** differ based on motion, ACV, pricing, product type, and implementation model.

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3. Investor and board framing in 2025

By 2025, boards and investors are no longer rewarding raw growth at any cost. What matters is **efficient growth** (expanding revenue, keeping customers, and doing it profitably). Nearly every board pack highlights the same small set of metrics.

Rule of 40

Boards often start with one question: is this company growing fast enough and earning enough profit to be sustainable? The **Rule of 40** was created as a shortcut to answer both at once.

The formula is simple: **growth rate + profit margin**. A business growing 20% per year with a 25% profit margin scores 45. That clears the threshold, because the combined number is above 40. A company can "win" with rapid growth and weak margins, or with slower growth and strong margins. The point is balance.

By 2025, more SaaS companies have pushed toward profitability than they had in 2023. Even so, only a minority consistently score above 40. That makes the Rule of 40 useful as a **peer benchmark** or a **trend check**, but dangerous as the whole story.

Boards now expect you to **unpack the pieces**. Show revenue growth and profit margin separately, then show the combined score. If you present only the Rule of 40 number, it hides what's really driving the result, and that's what investors want to see.

Retention quality (Net Revenue Retention, or NRR)

If the Rule of 40 is about balance, **Net Revenue Retention (NRR)** is about durability. It answers the question: *when we win a customer, how much of that revenue actually survives and grows over time?*

NRR combines three forces:

- **Expansion**: more revenue from existing customers through upsells, cross-sells, or heavier usage.

- **Contraction**: less revenue when customers downgrade or scale back.
- **Churn**: full revenue loss when customers cancel.

Boards value NRR because it separates fragile businesses from durable ones. Strong NRR means existing customers spend more over time, making growth compounding. Weak NRR means constant replacement of lost revenue, even if new sales look healthy.

Benchmarks in 2025 show the median NRR for SaaS companies in the $3–20M ARR band sits around 102–106%, with top performers much higher. This spread is why boards insist on segmentation.

When presenting NRR, avoid a single topline number. Always break it down by:

- **ACV band (deal size):** small accounts often churn quickly; enterprise accounts retain longer but expand more slowly.
- **Customer type:** show whether growth comes from expansion inside existing accounts or from acquiring new ones.

With these cuts, NRR stops being just a percentage and it becomes a map of how durable your revenue truly is.

CAC payback: the gatekeeper of spend

Definition. CAC payback measures how long it takes to recover the cost of acquiring a customer. The clock stops once gross profit from that customer has covered the sales and marketing expense. If it takes 18 months to break even, your CAC payback period is 18 months.

Why it matters. Boards treat CAC payback as the limit test for growth. If recovery takes too long, the company is burning cash faster than it earns it back, which makes scaling unsustainable. A short payback period signals efficient growth; a long one raises red flags, even if revenue looks strong.

Investor expectations in 2025. Most investors want **gross-margin-adjusted CAC payback**, meaning you use profit after service delivery costs, not just raw revenue. They also expect CAC payback segmented by:

- **Sales channel** (inbound, outbound, partner, etc.), since efficiency varies by source.
- **ACV band** (deal size), since small accounts must pay back faster while enterprise deals can support longer cycles.

Two standard views. Operators usually present both:

- **New-only CAC ratio:** payback based only on newly acquired customers.
- **Blended CAC ratio:** payback that includes both new acquisition and expansion revenue.

How to present it. Never show CAC payback as a single, unexplained number. State the formula, specify whether it is margin-adjusted, and define the customer population included. Without that clarity, comparisons across time or with peers are meaningless.

Product usage signals: early indicators

Boards want to know if growth is real or just manufactured by marketing spend. That's where **product usage signals** come in. These are behaviors inside the product that strongly predict conversion to paid or future expansion.

Two signals dominate in SaaS:

- **PQL (Product-Qualified Lead):** an individual whose actions (inviting teammates, uploading data, or hitting a usage threshold) show serious intent to buy.
- **PQA (Product-Qualified Account):** a whole customer account where collective usage patterns signal readiness for sales engagement.

These stand in contrast to the older **MQL (Marketing-Qualified Lead)**, which is based on marketing interactions like downloading a whitepaper or clicking an email. MQLs can show interest, but they are weaker predictors than real product activity.

Boards pay attention because **PQLs and PQAs consistently convert at much higher rates than MQLs**. They are proof that adoption is taking hold and that sales opportunities are grounded in actual product value.

By 2025, best practice is to track three usage-driven metrics as leading indicators:

- **Activation:** are new users reaching the first meaningful milestone?
- **Free-to-paid conversion:** what share of free users become paying customers?
- **PQL/PQA throughput:** how many users or accounts are moving from signal to sales action?

Each signal must be defined with explicit product events (clicks, invites, uploads, transactions) so sales and customer success teams can act consistently. Otherwise, usage signals are just noise.

Reality checks for 2025

Growth has reset. Public SaaS companies now average mid-teens annual growth. That is the baseline boards expect. Claims of 30 to 40% growth are no longer taken at face value and they must be backed by strong evidence, such as exceptional product-market fit, a unique market expansion, or a special situation like a new category.

Retention is context-dependent. Net Revenue Retention (NRR) is never one number. It swings widely by **ACV band** (small customers churn faster, enterprise customers retain longer but expand differently) and by **go-to-market model** (PLG versus sales-led). A single topline figure hides too much. Boards expect ranges and segment cuts that show where durability is real and where it is fragile.

Part II. Financial performance and unit economics

ARR, MRR, and Growth

What these measure

ARR (Annual Recurring Revenue) and MRR (Monthly Recurring Revenue) are the foundation of subscription business reporting.

- **MRR:** the normalized monthly value of active subscriptions. Example: if a customer pays $120 per year, you record $10 per month.
- **ARR:** the annualized run rate of recurring revenue. For simple monthly contracts, ARR = MRR × 12. For multi-year contracts, use the contracted annualized value.

Both exclude one-time charges such as setup fees, services, or hardware. These are **non-GAAP metrics** (not governed by accounting standards), which makes consistency critical. SEC guidance is clear: label them, explain your calculation method, and avoid changing definitions in ways that mislead.

Net vs Gross

Think of **gross** as “don’t give yourself credit for expansion.”
Think of **net** as “let expansion offset losses.”

- **Gross revenue retention (GRR):** You start with $100 of recurring revenue from last year’s customers. If $10 cancels and another $5 downgrades, you’re left with $85. That’s **85% gross retention**. It doesn’t matter if someone else expanded by $20, you ignore expansions in gross.

- **Net revenue retention (NRR):** Now you take those same customers. They churned and downgraded ($15 lost), but others expanded by $20. Net = $105. That’s **105% net retention**. Here, expansions can more than cancel out churn.

Gross is a stricter view. Net is the reality of customer health and how expansion dynamics work. Investors and operators love NRR because it shows if your base grows on its own. But both matter. **If gross retention is low, the engine has leaks even if NRR looks great from expansion.**

Why they matter in 2025

Boards and operators are laser-focused on three questions:

1. **Level:** how much recurring revenue exists right now?

2. **Movements:** what caused it to change?

3. **Efficiency:** how well is growth funded?

ARR and MRR answer the first two directly. They show the true size of the recurring base, reconcile sales claims with finance reality, and tie product adoption to revenue outcomes.

Exact definitions you will adopt

- **MRR (Monthly Recurring Revenue):**

    - Sum, at month end, of all active recurring subscription charges, normalized to monthly values.

    - Excludes one-time items.

- ➢ Always decomposed into five categories of movement: **new business, expansion, contraction, churn, and reactivation.**

❖ **ARR (Annual Recurring Revenue):**

- ➢ Annualized recurring run rate at a point in time.
- ➢ For monthly contracts: ARR = 12 × MRR.
- ➢ For multi-year contracts: use the contracted annualized value.
- ➢ Commonly presented with an **ARR bridge**, which shows how starting ARR moves to ending ARR through new, expansion, contraction, and churn.

❖ **Net New ARR:**

- ➢ Formula: **new ARR + expansion ARR − churned ARR − contraction ARR**
- ➢ Cleanest attribution of growth because it isolates the drivers.

Why not just ARR = MRR × 12?
This shortcut only works if revenue is truly stable.

- **Seat-based with fixed pricing** (e.g. $50/seat/month): safe to annualize MRR.
- **Usage-based** (e.g. AWS, Twilio, Datadog): risky. A single spike (one big job) can wildly overstate ARR if you multiply by 12.

Better approaches

1. **Annualize Contracted Minimums:** Only annualize the guaranteed portion of the contract. Example: Customer has a $5k monthly minimum but often spends $15k. ARR = $60k (12 × $5k), not $180k.
2. **Use Smoothed MRR (3-Month Average):** Take the rolling average before multiplying by 12. This removes the noise of one-off spikes.

   Jan = $100k

   Feb = $250k (spike)

   Mar = $110k

   3-mo avg = $153k → ARR = $1.84m

Instead of incorrectly reporting Feb as $3m ARR.

3. **Split Base Recurring vs. Usage:** Separate the stable subscription base from volatile usage. Annualize only the base, and track usage as variable, not ARR.

Bookings, Billings, Revenue, and ARR (how they differ)

In SaaS, people often mix up revenue terms that sound similar but mean very different things. To avoid confusion, treat them as separate stages of the revenue lifecycle:

- **Bookings:** the total contract value signed. Example: a customer signs a $120,000 three-year contract. That full $120,000 counts as bookings on the day the contract is signed.

- **Billings:** the amount invoiced to the customer. If the same contract is billed annually, only $40,000 is billed each year.

- **Revenue (GAAP):** the amount you recognize under accounting rules (ASC 606) as service is delivered. With annual billing, $40,000 would be recognized gradually across the 12 months of that year.

- **ARR (Annual Recurring Revenue):** the normalized run rate of recurring revenue. In this case, ARR would be $40,000, reflecting the annualized portion of the contract that recurs.

Key point: ARR is not the same as bookings, billings, or GAAP revenue. It is an operating metric designed to show the recurring run rate of the business, not cash timing or accounting recognition. Mixing these terms leads to bad comparisons, since each answers a different question:

- Bookings = what did we sell?

- Billings = what did we invoice?

- Revenue = what did we earn (by GAAP rules)?

- ARR = what recurring revenue are we running at right now?

CARR and CMRR (Contracted ARR and Committed MRR)

These metrics show revenue that is **already signed or scheduled**, not just what is active today. They are meant to supplement ARR and MRR, not replace them. Because they are non-GAAP and company-defined, be clear about what you include/exclude and how you reconcile them.

- **CARR (Contracted ARR)**

  This is the **annualized value of signed recurring contracts, even if they haven't started yet.** You include things like scheduled price step-ups or extra capacity that are part of the executed order. You exclude anything not yet signed (pipeline, trials, one-time fees, or credits).

  CARR is popular with sales teams and boards because it shows total signed business. But it can overstate reality if contract start dates slip.

- **CMRR (Committed MRR)**

  Start with today's **MRR**. Then adjust it for **signed and dated changes** that fall inside your chosen time window (for example, the next 30, 60, or 90 days). That means you add new starts and step-ups, and subtract downgrades or churn that are already scheduled. You leave out anything not signed.

  It's important to disclose the exact horizon you use, because a 30-day window and a 90-day window can tell very different stories.

Make your rules explicit. Publish how you handle:

- Usage (minimum commits vs. variable overages).
- Currencies (fixed FX rates or showing FX impact separately).
- Smoothing (whether you show raw monthly data, smoothed averages, or both).

Boards expect to see short reconciliation bridges, like ARR to CMRR and ARR to CARR, so the logic is transparent and comparisons aren't misleading.

Some teams also publish committed ARR, which is simply 12 × CMRR. If you use that, spell it out directly so there's no confusion with CARR.

Usage-based pricing: handling the volatility

In 2025, many SaaS companies no longer charge just "per seat." Instead, they bill on **consumption**: API calls, data processed, storage used, transactions handled. This model makes revenue less predictable because usage fluctuates month to month.

If you simply take **MRR × 12** to estimate ARR, you risk smoothing away real swings. A heavy-usage month can make the annualized number look artificially high; a light month can make it look artificially low.

Best practice:

- **For usage-based pricing**, always base MRR on the finalized invoice amounts. These reflect what customers actually consumed and paid after applying discounts, minimums, tiers, and any overages that count as recurring. By pulling it straight from invoices, you avoid estimates or projections and ensure MRR ties exactly to billing records, which makes the number defensible and audit-ready.

- Maintain both a raw and a smoothed series. The **raw monthly MRR** lets you catch sudden spikes or drops in real time. The **smoothed MRR** (for example, a 3-month moving average) removes noise and is better for forecasts and board reporting. Use both: relying only on raw leads to overreacting, while relying only on smoothed hides important shocks.

- **Separate consumption from other drivers in ARR bridges.** When you explain "why ARR grew $50k this month," you want to split it by driver:
  - New logos: +$20k
  - Expansion seats: +$15k
  - Price increases: +$5k
  - Consumption usage: +$30k
  - Downgrades: −$10k
  - Churn: −$10k

  This tells a clear story. Without separating consumption, a one-time spike could make it look like sustainable growth, and you'd build a bad forecast.

Growth: three perspectives that always work together

To explain revenue growth credibly, you need three complementary views. Each one answers a different question.

1. **Level and movements** – Start with ending ARR, then show an ARR bridge (beginning ARR → ending ARR). Break changes into **new, expansion, contraction, churn, and reactivation**. This reveals whether growth is driven by new customers, account

expansion, or whether it is just offsetting churn.

2. **Rates** – Show **year-over-year ARR growth** as the headline, and **month-over-month MRR growth** for operational cadence. Avoid quarter-over-quarter unless you explicitly adjust for seasonality. Always show the **absolute Net New ARR number** next to growth rates so scale is clear. A 10% increase means something very different at $2M ARR than at $20M ARR.

3. **Cohorts** – Present ARR by **customer vintage**. Show how much revenue from each cohort survives after 12, 24, and 36 months. This makes durability visible and shows whether expansion offsets churn or if early cohorts fade quickly.

Note: A **cohort** is any group of customers that share a common attribute. A **vintage** is a cohort that's specifically grouped by the **start date of the customer relationship** (their signup or contract start). It's basically the "graduating class" of customers that all entered around the same time.

Edge cases: lock them once, apply forever

Revenue reporting falls apart when exceptions are handled inconsistently. To avoid drift, set rules once and never change them.

- **Free trials and paused plans**: excluded until they convert or reactivate.
- **One-time fees or services**: excluded (ARR/MRR are about recurring revenue only).
- **Discounts**: reflected in the recurring price.
- **Credits**: reduce MRR in the month applied.
- **Multi-year deals**: normalize to monthly or annual ARR, with scheduled ramp-ups recorded as future step-ups.
- **Foreign exchange (FX)**: convert at a published monthly rate and lock that rate for close.
- **Not-yet-live contracts**: shown separately as *Committed ARR*, but excluded from core ARR.

The goal is comparability: month to month, team to team, board to investor. Once these rules are set, they form the audit trail that makes metrics defensible.

Minimal SQL sketches

MRR at month end

```
-- Step 1: get the last day of the current month
with month_end as (
    select date_trunc('month', current_date) + interval '1 month - 1
day' as dt
),

-- Step 2: active recurring subscription components on that date
active as (
    select
        s.account_id,
        s.plan_id,
        s.monthly_amount,                  -- already normalized
        coalesce(s.valid_to, '9999-12-31') as valid_to
    from revenue.subscriptions s
    where s.is_recurring = true
      and s.is_one_time = false
)

-- Step 3: sum up MRR for active components
select
    sum(monthly_amount) as mrr
from active a
join month_end m
  on m.dt between a.valid_from and a.valid_to;
```

MRR movements (new, expansion, contraction, churn, reactivation)

```
-- Step 1: define the two month-ends to compare
with bounds as (
    select
        date_trunc('month', current_date) - interval '1 month' as
prev_month_end,
        date_trunc('month', current_date) + interval '1 month - 1 day'
as curr_month_end
```

```
),

-- Step 2: snapshot MRR at both month ends
snapshots as (
    select account_id, sum(monthly_amount) as mrr, 'prev' as which
    from revenue.subscription_daily s, bounds b
    where s.snapshot_date = b.prev_month_end
      and s.is_recurring = true
    group by account_id

    union all

    select account_id, sum(monthly_amount) as mrr, 'curr' as which
    from revenue.subscription_daily s, bounds b
    where s.snapshot_date = b.curr_month_end
      and s.is_recurring = true
    group by account_id
),

-- Step 3: align accounts across both periods
pivoted as (
    select
        coalesce(p.account_id, c.account_id) as account_id,
        coalesce(p.mrr, 0) as prev_mrr,
        coalesce(c.mrr, 0) as curr_mrr
    from (select * from snapshots where which = 'prev') p
    full outer join (select * from snapshots where which = 'curr') c
      on p.account_id = c.account_id
)

-- Step 4: classify movements
select
    sum(case when prev_mrr = 0 and curr_mrr > 0 then curr_mrr else 0
end) as new_mrr,
    sum(case when prev_mrr > 0 and curr_mrr > prev_mrr then curr_mrr -
prev_mrr else 0 end) as expansion_mrr,
    sum(case when prev_mrr > curr_mrr and curr_mrr > 0 then prev_mrr -
curr_mrr else 0 end) as contraction_mrr,
```

```
    sum(case when prev_mrr > 0 and curr_mrr = 0 then prev_mrr else 0
end) as churn_mrr,
    sum(case when prev_mrr = 0 and curr_mrr > 0 then curr_mrr else 0
end) as reactivation_mrr
from pivoted;
```

ARR bridge (monthly rolled to annual)

```
-- Step 1: monthly MRR totals
with monthly as (
    select
        date_trunc('month', month_end) as mth,
        sum(mrr) * 12 as arr            -- convert MRR to ARR
    from revenue.mrr_snapshots
    group by 1
),

-- Step 2: monthly movements
movements as (
    select
        mth,
        sum(new_mrr) * 12         as new_arr,
        sum(expansion_mrr) * 12   as expansion_arr,
        sum(contraction_mrr) * 12 as contraction_arr,
        sum(churn_mrr) * 12       as churn_arr
    from revenue.mrr_movements
    group by 1
)

-- Step 3: combine for ARR bridge
select
    m.mth,
    mv.new_arr,
    mv.expansion_arr,
    mv.contraction_arr,
    mv.churn_arr
from monthly m
join movements mv using (mth)
```

```
order by m.mth;
```

Quality checks (must-haves)

- ❖ No overlapping subscription periods for the same account/component.
- ❖ No negative MRR after credits/discounts, unless refunds are modeled explicitly.
- ❖ Reconciliation: prove that **Ending MRR = Prior MRR + Movements**.

For finance alignment, keep a reconciliation page tying ARR/MRR to billings, deferred revenue, and GAAP revenue. ARR is an operating metric; revenue recognition follows ASC 606.