

Usage-based billing cheat sheet

How familiar SaaS metrics change when customers pay for what they use, and which usage-specific metrics to add.

Full guide: chartmogul.com/saas-metrics/usage-based-billing-cheat-sheet

1 The basics

Pricing models

MODEL	HOW IT WORKS	SPEND PREDICTABILITY
Pay-as-you-go	Pay per unit consumed	● ● ●
Tiered / volume	Unit price changes by usage band	● ● ●
Hybrid	Subscription plus overage	● ● ●
Prepaid credits	Buy credits upfront, top up	● ● ●
Committed spend	Commitment drawn down over the term	● ● ●
Outcome-based	Pay per result delivered	● ● ●

Three ways to look at revenue

CONCEPT	WHAT IT ANSWERS
Usage revenue	What did consumption generate this period?
Usage MRR	What run rate do we assign to the latest billed usage?
Contracted commitments	What has the customer agreed to spend?

They overlap, so never add them up.

\$12k of usage against a \$120k annual commitment counts toward the commitment, not on top of it.

2 Growth metrics

Usage MRR

The latest billed usage counts as the run rate until the next usage invoice replaces it.

$$\text{Usage MRR} = \frac{\text{Usage charges for the billing period}}{\text{Months in the plan interval}}$$

$$\text{Total MRR} = \text{Subscription MRR} + \text{Usage MRR}$$

- \$200 of usage one month, \$20 the next: usage MRR drops from \$200 to \$20.
- A \$500 one-day overage is \$500, not \$15,000 MRR. Never extrapolate a partial period.

$$\text{Usage MRR share} = \frac{\text{Usage MRR}}{\text{Total MRR}}$$

CMRR vs. bookings

CMRR Recurring revenue customers are contracted to, excluding variable usage above it.

BOOKINGS Total commitment value at signing: a \$360k three-year deal is \$360k on day one.

MRR movements

- Expansion** Usage MRR is higher than last period.
- Contraction** Usage MRR is lower, or usage stops while another subscription is still paid.
- Churn** Usage stops and there's no other paid subscription.
- Reactivation** A churned customer generates usage again.

3 Retention metrics

Zero usage: three possible meanings

Revenue loss

Usage MRR drops to zero.

Inactivity

Seasonal or between projects.

Customer churn

The customer has left.

Zero billed usage for a full period counts as churn (contraction if another paid subscription remains), even without a cancellation.

NRR and GRR

Calculate both on the **same starting cohort**.

$$\text{NRR} = \frac{\text{Starting MRR} + \text{Expansion} - \text{Contraction} - \text{Churn}}{\text{Starting MRR}}$$

$$\text{GRR} = \frac{\text{Starting MRR} - \text{Contraction} - \text{Churn}}{\text{Starting MRR}}$$

4 Efficiency metrics

$$\text{Unit gross margin} = \frac{\text{Price per unit} - \text{Cost per unit}}{\text{Price per unit}}$$

REVENUE PER COMPUTE Revenue ÷ inference and infrastructure cost.

LTV Use as a guide; check it against cohort revenue curves.

CAC PAYBACK Ramping customers make first-month estimates look too long. Track it per cohort.

5 Usage-specific metrics

$$\text{Commitment utilization} = \frac{\text{Consumed to date}}{\text{Total commitment}}$$

$$\text{Consumption pace} = \frac{\text{Commitment utilization}}{\text{Share of term elapsed}}$$

\$200k of a \$1M commitment after 8 months: 20% used, 30% of expected pace.

Revenue growth ≠ consumption growth

	MONTH 1	MONTH 2	CHANGE
Units consumed	1M	1.5M	+50%
Revenue per 1M units	\$100	\$80	-20%
Usage revenue	\$100	\$120	+20%

Leading indicators

METRIC	HOW TO CALCULATE
Active consumption accounts	Accounts with billable usage
Consumption per account	Units ÷ active accounts
Revenue per unit	Usage revenue ÷ units
Time to first billable usage	Median days from signup

6 Common mistakes

- Extrapolating a partial-period charge
- Double counting commitments, usage and overages
- Reading one month as a trend
- Equating zero usage with a lost customer
- Mixing usage units with seat counts