

# Gross Revenue Retention (GRR)

## Metric Standards Document

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**Metric Name: Gross Revenue Retention (GRR)**

**Alternative Metric Name(s): Gross Dollar Retention (GDR)**

### Gross Revenue Retention Overview

#### Definition: Gross Revenue Retention

Gross Revenue Retention (GRR), also known as Gross Dollar Retention (GDR) measures the percentage of recurring revenue that is retained over a specific period of time. GRR captures lost recurring revenue due to customers leaving or lowering their usage commitments.

By contrast, Net Revenue Retention (NRR) includes expansion revenue, while GRR only includes the effects of lost customers or lower revenue (down-sell) from existing customers.

#### Business Value and Insights: Gross Revenue Retention

GRR is a critical SaaS metric because it directly measures the stability of a SaaS business's revenue. SaaS businesses with high GRR are more predictable and have higher growth potential because churn is not a significant drain on revenue.

Customer churn/attrition is the primary driver to lower GRR to the downside. Companies with high GRR tend to have both low levels of customer attrition and limited revenue contraction from existing customers. GRR will always be less than 100% as it does not include up-sell, cross-sell or usage expansion from existing customers.

#### Calculation Formula: Gross Revenue Retention

##### Calculation #1: Cohort Method

The cohort method is the most accurate way to measure GRR and is the preferred approach in most situations. The cohort method compares the recurring revenue of *a specific group of customers* over time.

Calculating GRR based on the cohort method is straightforward. As shown in the calculation example and associated table below, the MRR for active customers from one year ago is in the first column. The current month's MRR for those same customers is in column two. The third column, the "Adjusted MRR," is simply the lesser of the beginning MRR or the current month's MRR. That adjustment mathematically eliminates expansion revenue while capturing shrinkage and churn.

For this calculation, it's important to use recognized recurring revenue and not bookings, billings, or cash accounting.

SaaS companies with enterprise customers, longer contracts and implementation cycles can also use Annual Recurring Revenue (ARR) or Contracted ARR (CARR). If using CARR, the metric will capture churn that occurs during the implementation cycle and before revenue is recognized.

**Data Inputs Required:**

**Data Input #1:** MRR by customer at the beginning of the measurement period

**Data Input #2:** Adjusted MRR\* for that same group of customers at the end of the period.

*\*Adjusted MRR is the lesser of the beginning MRR or the current month's MRR. This technique mathematically eliminates expansion revenue while capturing shrinkage and churn*

The revenue recognition schedule contains most MRR data, and CARR might be found in the CRM or contract management system.

**Calculation Example:**

$$\frac{\text{Adjusted MRR from the same cohort of customers at the end of the period}}{\text{MRR from a customer cohort at the beginning of the measurement period}}$$

**Sample Calculation**

<u>Customers on 3/1/2021</u>	<u>Beginning MRR March 2021</u>	<u>Ending MRR March 2022</u>	<u>Adjusted MRR March 2022*</u>
Customer 1	\$ 100.00	\$ 200.00	\$ 100.00
Customer 2	\$ 200.00	\$ 200.00	\$ 200.00
Customer 3	\$ 500.00	\$ -	\$ -
Customer 4	\$ 200.00	\$ 300.00	\$ 200.00
Customer 5	\$ 1,000.00	\$ 1,500.00	\$ 1,000.00
Customer 6	\$ 300.00	\$ 200.00	\$ 200.00
Customer 7	\$ 500.00	\$ 900.00	\$ 500.00
Customer 8	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00
Customer 9	\$ 400.00	\$ 600.00	\$ 400.00
Customer 10	\$ 600.00	\$ -	\$ -
Total MRR	\$ 5,000.00	\$ 5,100.00	\$ 3,800.00
Net Dollar Retention		102%	
Gross Dollar Retention			76%

\* Adjusted MRR is the lesser of Beginning or Ending MRR

In the above sample calculation, some customers attrit, some contracted and some expanded; however, the GRR calculation only adjusts for **contraction and attrition**.

GRR can never exceed 100%

### Calculation Timing:

The time period between the beginning MRR and ending MRR (for the same set of customers) is typically one year. Using GRR as an annual measurement is the most intuitive and easy to benchmark.

If the calculation period is less than one year, it can be annualized by taking the result to the appropriate power. For example, if measured over a quarter, take the result to the 4th power, and if measured over a month, take the result to the 12th power.

Generally speaking, longer measurement periods yield the best results for long sales-cycle companies with larger annual or multi-year contracts, and shorter measurement periods are a better fit for companies with smaller contract values and shorter sales cycles.

Regardless of the measurement period, the metric is typically calculated monthly on a rolling basis.

### Nuances to Consider:

**#1:** The cohort approach is considered more accurate than the formula approach, whose deficiencies are outlined below.

**#2:** When using MRR, the cohort approach does not require a separate tracking of revenue contraction or churn; it is embedded in the Adjusted Ending MRR.

**#3:** Revenue recognition accelerated due to a canceled contract should not be included in the beginning or ending MRR.

**#4:** Most companies define a “win-back” period of 30 - 90 days. If a churned customer renews within the win-back period, the resulting revenue is counted as a renewal and not a new sale.

**#5:** Using CARR instead of MRR captures the churn of customers who cancel after signing their contract but before implementation is complete and revenue is recognized. This is a useful measure for companies with long implementation cycles.

**#6:** It is recommended to exclude **variable revenue** from **usage-based pricing** in the GRR calculation. GDR would capture the downside of variable revenue, but not the upside, and is not particularly helpful in understanding overall retention or organic growth.

**#7:** When dealing with multiple currencies, the best practice is to convert both beginning and ending MRR at the same exchange rate.

The cohort approach's main drawbacks are:

1. It does not capture the retention performance of recently acquired customers
2. It may not be helpful for a new business with few or no customers older than one year

### **Calculation #2: Formula Method**

The formula method divides churn for the period (adjusted for any expansion or contraction revenue) by the beginning revenue for the period. The calculation can use either Annual Recurring Revenue, (ARR), or Monthly Recurring Revenue (MRR), with MRR being the most common.

The Cohort Method is more accurate than the formula method and is generally preferred. The Formula Method requires churn values to be defined and tracked separately, and can be distorted by new customers that sign-up and churn in the same period.

### **Data Inputs Required:**

**Data Input #1:** Beginning MRR

**Data Input #2:** Churned MRR for the period\*

\*Churned MRR results from customers who canceled or did not renew in the period.

\*\* Down-Sell MRR is the incremental MRR lost from existing customers due to reduction in subscription commitment or other decrease in Contracted MRR

**Calculation:**

$$((\text{Beginning MRR} - \text{Churned MRR} - \text{Down-Sell MRR}) / \text{Beginning MRR}) \times 100 = \text{GRR (\%)}$$

**Sample Calculation using MRR:**

Beginning MRR: \$100,000

Churned MRR in period: \$1,000

Contraction MRR in period: \$ 500

$$\text{Gross Revenue Retention} = 1 - (\$1,000 + \$500) / \$100,000$$

$$\text{Gross Revenue Retention} = 1 - (\$1,500) / \$100,000$$

$$\text{Gross Revenue Retention} = 1 - (.015)$$

.985 or 98.5% for the period

If the above measurement period were one month, the annualized GRR metric would be

$$\text{GRR} = .985^{12} \text{ or } 83.4\%$$

If the measurement period were one quarter, the annualized GDR would be

$$\text{GRR} = .985^4 \text{ or } 94.1\%$$

**Calculation Timing:** The calculation can cover a month, quarter, or year but is most accurate when measuring monthly time periods. Quarterly calculations are typically annualized, but monthly numbers might not be appropriate for annualization due to their inherent variability. Using the formula method over a year-long period introduces errors which are described below.

**Nuances to Consider: Formula Method**

The formula method is most commonly used with lower annual contract value businesses that have relatively high churn. For example, it's frequently used in B2C and telecom companies who benchmark themselves based on monthly churn. The formula approach is also good for high growth businesses where many of the current customers have not been customers for more than one year and are therefore not captured in the cohort approach.

The main drawback to the formula approach is that some churn which occurs during the measurement period may not be related to customer revenue included in the beginning MRR

which is the denominator in the calculation. *This effect can introduce significant errors in the calculation and becomes more pronounced over longer measurement periods.*

### **Gross Revenue Retention - Links to related Standards**

Contacted ARR (CARR) Standard: [Click here](#)

Annual Recurring Revenue (ARR) Standard: [Click here](#)

Net Revenue Retention (NRR) Standard: [Click here](#)