About Measures And Aggregates

AtScale's aggregate management system depends on the measures you define in a cube. Every cube must have at least one measure. The measures of a cube provide the basis for analysis in a BI client application.

When users connect to an AtScale cube using a BI client tool, what they see is a list of measures and dimensions that they can use.

What makes a field a measure is that it produces aggregated data values for the dimensions chosen in the visualization or report. For example, suppose you wanted to see the total Sales Amount (a measure) for each State (a dimension). The Sales Amount measure is actually a `SUM` aggregate calculation applied to the sales fact data. In this visualization the Sales Amount is summarized for each State.

Because this measure is defined in the cube, AtScale is able to optimize this query by creating and using an aggregate table. Any future queries that involve this measure and dimension will use the pre-aggregated data rather than having to compute the summarized values again.