Setting The Scope

The scope configuration provides a way to control when AtScale applies security dimension constraints.

Scope Property

When creating a row security object, you set the scope to one of the following values:

- **Related**

  Applies the security constraint when the query selects any dimension or secondary attributes that have a path to the security dimension as long as no fact table is used. The security constraint is **not** applied to dimension-only queries that select multiple dimensions related through a fact table. See the red box on the figure below.

- **Fact**

  Applies to the same queries as **Related**, as well as queries that include a measure from a fact table connected to the secure dimension (see the yellow box on the figure below). The security constraint is **not** applied to single-dimension-only queries that are related to the secured dimension via the fact table (Date and Store Location in the figure below). However, security **is** applied to multi-dimension-only queries because they are joined using a synthetic measure from the fact table that relates them (dashed yellow box in the figure below).

- **All**

  The security constraint applies to every query unless there is no path to the security dimension. This is the case with two separate fact tables, each with their own unrelated dimensions. See the green box in the figure below.

Example

The figure below illustrates a model consisting of `factinternetsales` (a fact table), `Product SKU` (dimension secured by a nested Product Security Dimension), Date (unsecured dimension), and Store Location (unsecured dimension).

Figure: Graphic Representation of Row Security Query Scopes
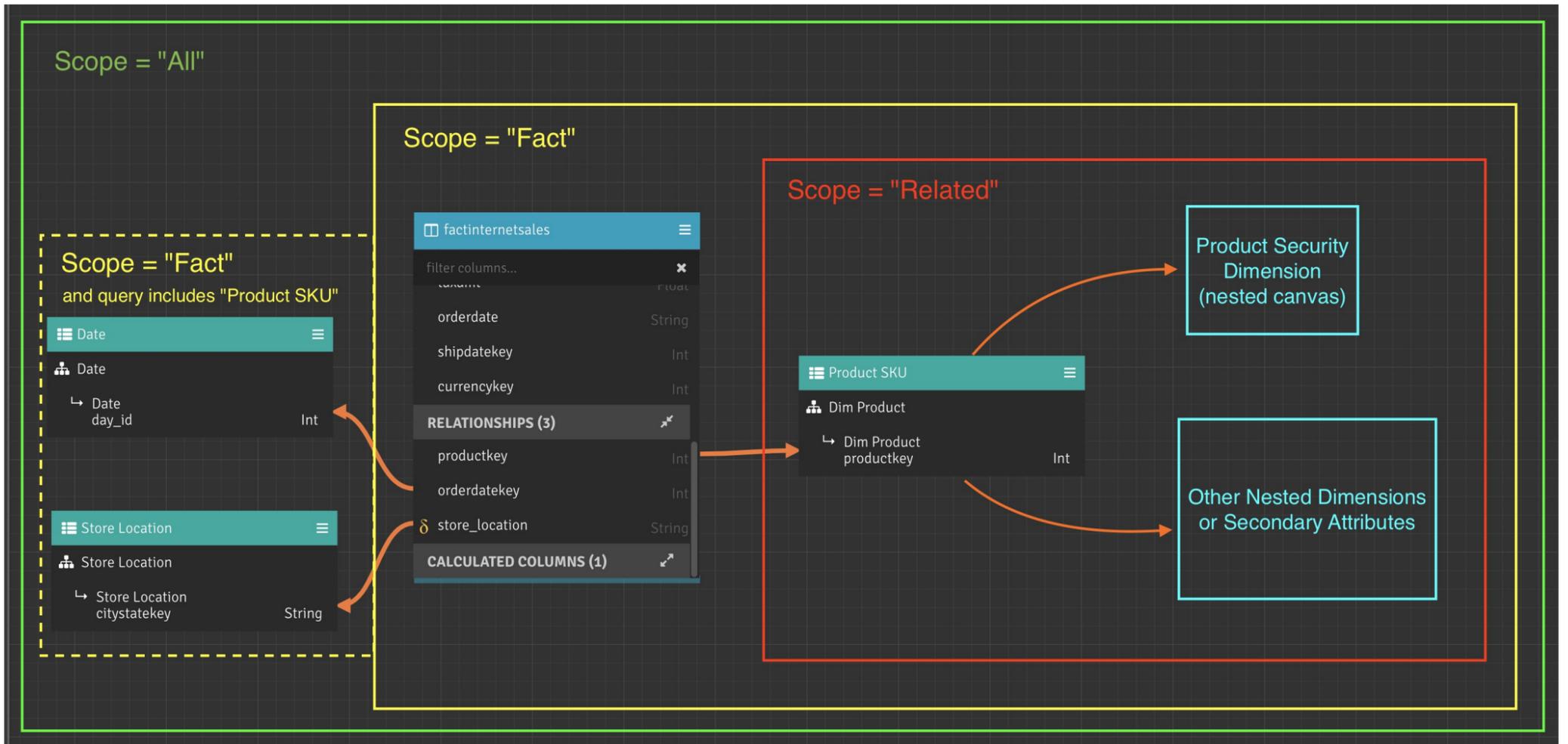
Given the model in this figure, the table below illustrates the application of the Product Security Dimension as either a "Yes" or "No" value for each example query and scope setting on the Product Security Dimension.

Table: How the Scope Settings Affect Queries

Query selected attributes	Product Security Dim Scope = All	Product Security Dim Scope = Fact	Product Security Dim Scope = Related
Product SKU	Yes	Yes	Yes
Product SKU secondary attributes	Yes	Yes	Yes
Date	Yes	No	No
Store Location	Yes	No	No
Date, Store Location	Yes	Yes	No
Sum(SalesAmount)	Yes	Yes	No
Sum(SalesAmount),	Yes	Yes	No

Date, Store Location			
Sum(SalesAmount), Date, Product SKU	Yes	Yes	Yes

Notes On Row Security Scope

- Degenerate dimensions (dimensions derived from a fact table) behave the same way as standard dimensions with respect to the scope setting of **Fact**. Therefore, a dimension-only query on a degenerate dimension will **not** have its contents filtered by a secured dimension connected to the fact table (for example, Product SKU on the figure above).

- Security constraints for all scopes do not apply to queries run against unconnected fact datasets or their dimensions.